Zenza BRONICA ETRS

REPAIR MANUAL

TOOL·PARTS LIST

BRONICA CO., LTD.

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1. Detachment of the Right Side Cover

How to Detach

1) Strip off two crank base covers (A257040) which are fixed to the surface of the crank base casting (A753325) with bonding agent and then loosen four fixing screws (B813605). Finally, detach the parts up to the crank ring set (A753340).
2) Strip off the leatherette on the multi-exposure lever (A256091), loosen the fixing screw and then detach the multi-exposure lever.
3) Strip the leatherette from around four screws or two B813357 and two B813287, loosen these four exposed screws and, finally, detach the right side cover (A755405).

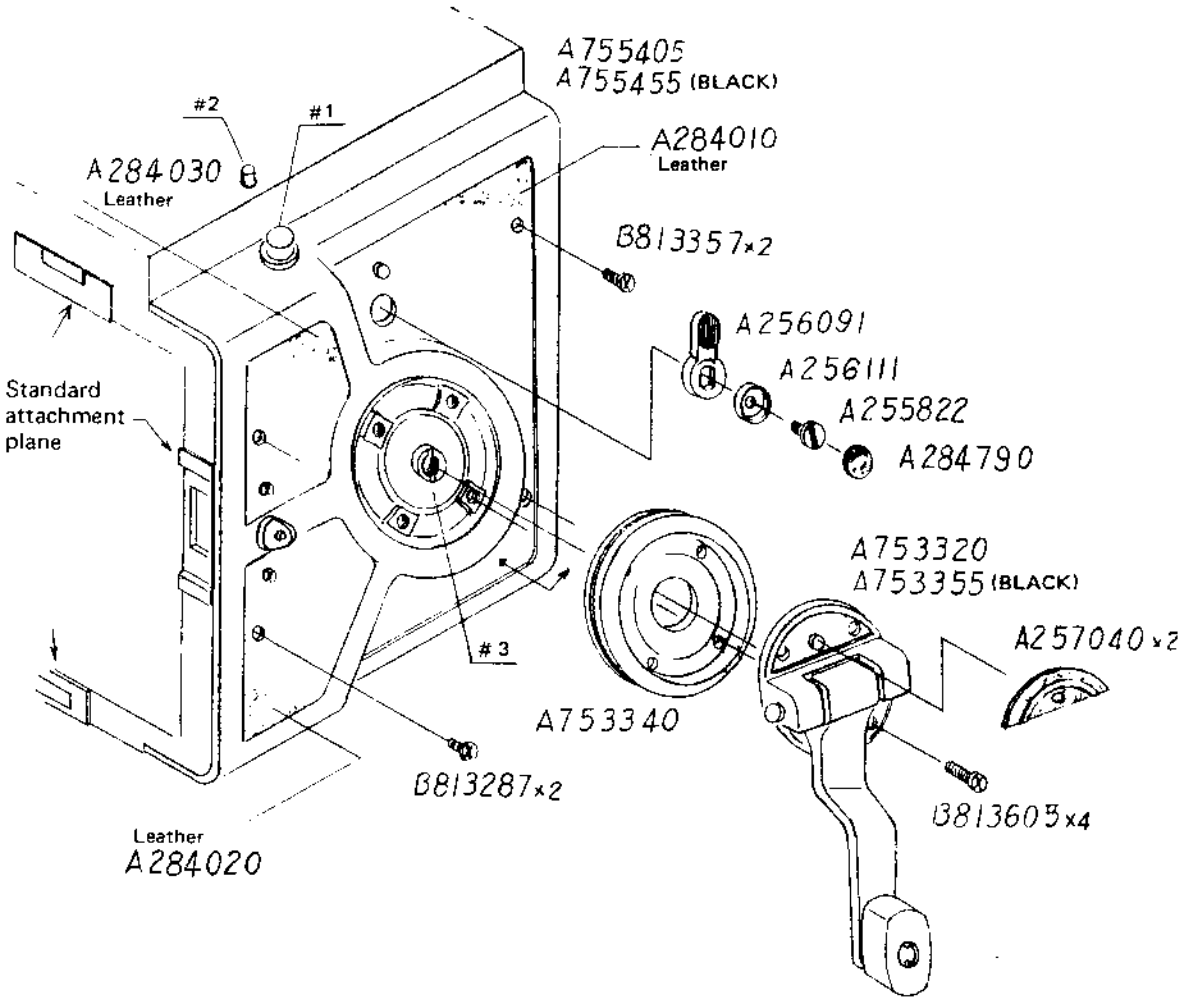
CAUTION:

The crank base covers are deformed rather easily and, therefore, it is recommended that spares always be held on hand for exchanging.

How to Attach

Attachment is in the reverse order of the above, but keep the following points in mind, when doing so: –

1) The right side cover should be located while depressing the finder locking pin (#2) in order that the pin can be located for coupling with the finder release button (#1).
2) The crank ring set must be positioned concentrically with the crank base casting, or with equal spacing all around it, in order to prevent contact with the right side cover which should, in turn, not protrude beyond the base surface (attachment of the film back will help in determining the location at this time and the winding crank should also be revolved to confirm positioning).

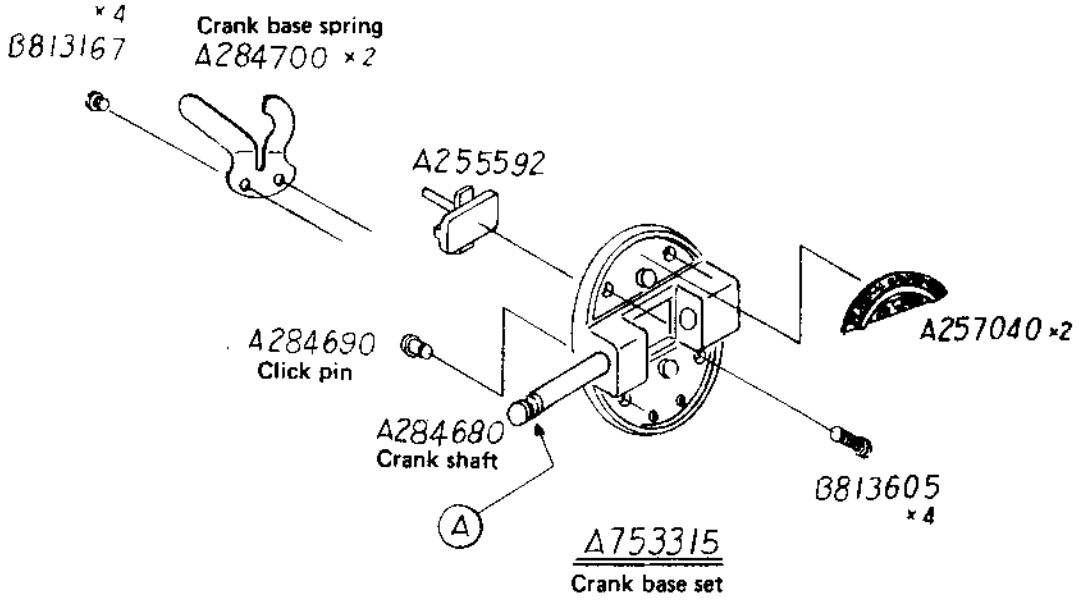


2. Film Winding Cranks Comes Off: Crank Shaft Slips Out Easily

The crank shaft (A284680) is securely fixed in position only when the click pin (A284690) is inserted fully in the groove (A) on the crank shaft.

1) Strip off the two crank base covers (A257040), loosen four fixing screws (B813605) and detach the crank base set (A753310). Next, bend the crank base spring (A284700) so that it exerts more pressure on the click pin.

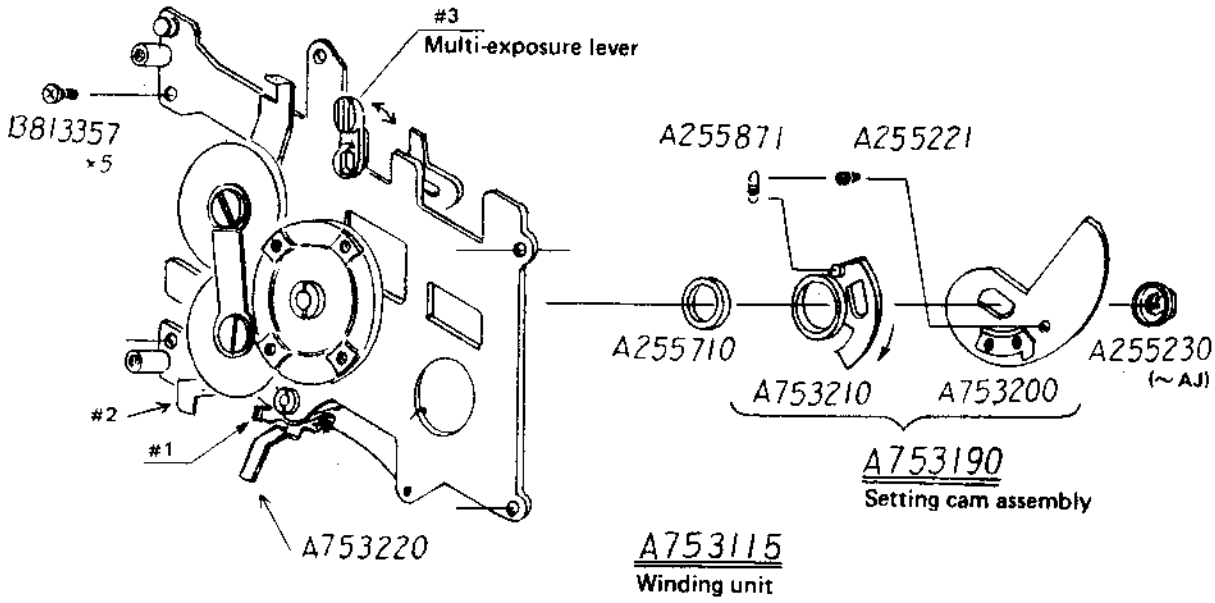
Fig. 1



3. Multiple Exposure is not Possible

The multiple exposure mechanism is activated by setting the multi-exposure lever (#3) or rotating it in the clockwise direction, which disconnects gears on the body side from those on the film back side, so that the film is no longer advanced with film winding crank action. At the same time, although the film is no longer being advanced, the multiple exposure mechanism stops the film winding and shutter charging action and permits shutter release when operations are completed on the body side only.
If multiple exposure is not possible, when set in the above manner, but becomes possible when the multi-exposure lever (#3) is reversed once (to normal single exposure operation) and then re-set for multiple exposure, the movement of the winding auxiliary plate (A753210) is defective. Winding is not possible, in the first instance because the winding claw (#1) engage the setting cam (A753200) even after the shutter is released.
Repair in the following manner: —

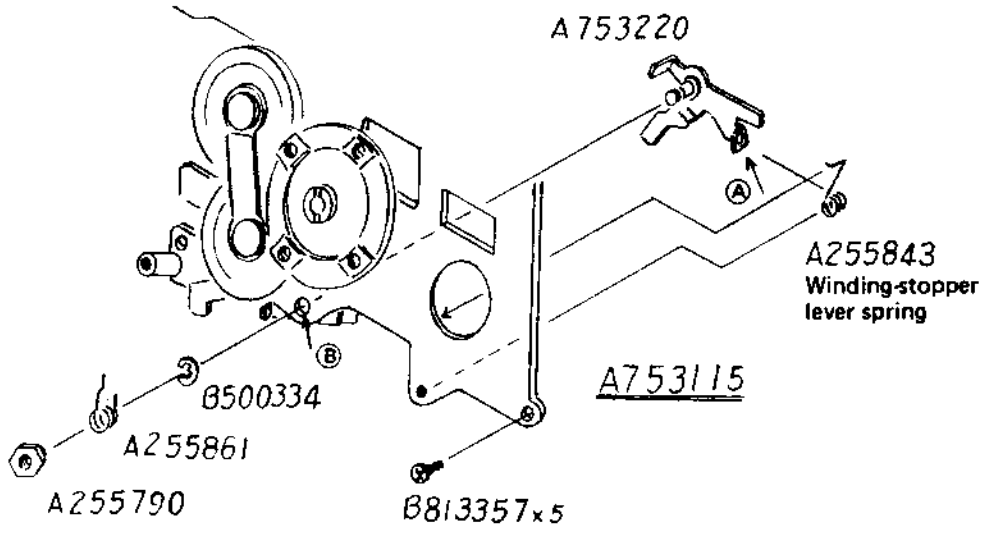
1) Detach the right side cover, loosen five B813357 screws and take out the winding unit (A753110).
2) Detach the cam holding nut (A255230) and then detach the setting cam assembly (A753190). Finally, replace with a new setting cam assembly.
3) When reattaching the winding unit in the body, see that the winding stopper lever (A753220) and #2 engage with the F. (film) release unit. (See Exchanging the Film Release Unit on page 8.)



4. Winding Action does not Stop: Winding Stopper Lever Spring is Unhooked

Load a test roll film in the film back and manipulate the winding crank (and advance the film and charge the shutter) for taking the first frame. Then, detach the film back and check whether the F. (film) release pin (A260990) is protruding up to the front end of the F. release cylinder A (A260952) (see page 33). If the pin is not protruding correctly, correct according to "Film Back – 6. Winding Action does not Stop".

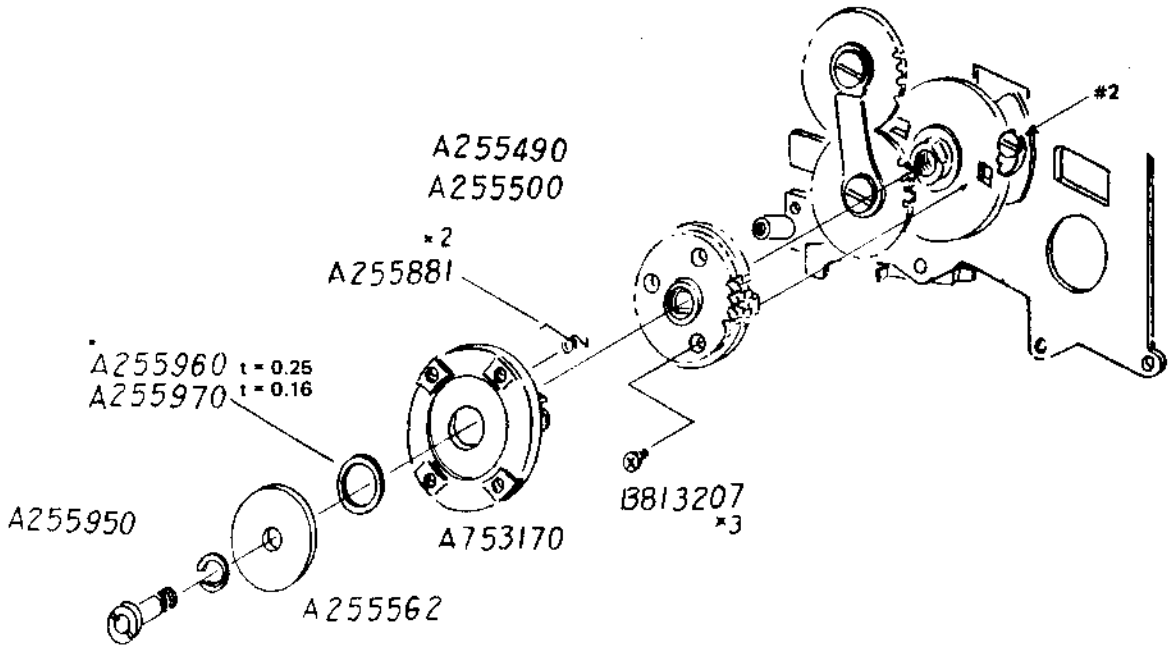
1) Detach the right side cover. If the winding stopper lever spring is unhooked, it will be quite all right to hook it up once more but since it is liable to get unhooked again, it is recommended that the following repair be undertaken.
2) Loosen five B813357 screws and detach the winding unit (A753110).
3) Loosen the winding stopper claw spring holder (A255790) with the special screwdriver (A255790-AJ), take off the snap ring "type E" (B500334) and, then, detach the winding stopper lever (A753220).
4) Obtain a new winding stopper lever replacement part (which has a round opening in the place indicated by the (A) arrow) and assemble it into the body. When using the new replacement part, however, enlarge the opening on the winding base plate assembly, as indicated by (B) arrow, to 2 mm diameter.
5) Refer to page 8 for reattachment of the winding unit.



5. Winding Crank is very Loose: Main Shaft Setscrew is Loose

Strip off the crank base covers (A257040) and check whether the B813605 screws are loose or not. (See page 1.)

1) If looseness in the winding wheel (A753170) can be corrected by tightening the main shaft setscrews (A255572), detach the setscrew, apply Loc-Tite to the threads and re-tighten the main shaft setscrew securely once more.



6. Winding Action is not Possible: Transmission Gear is Cracked

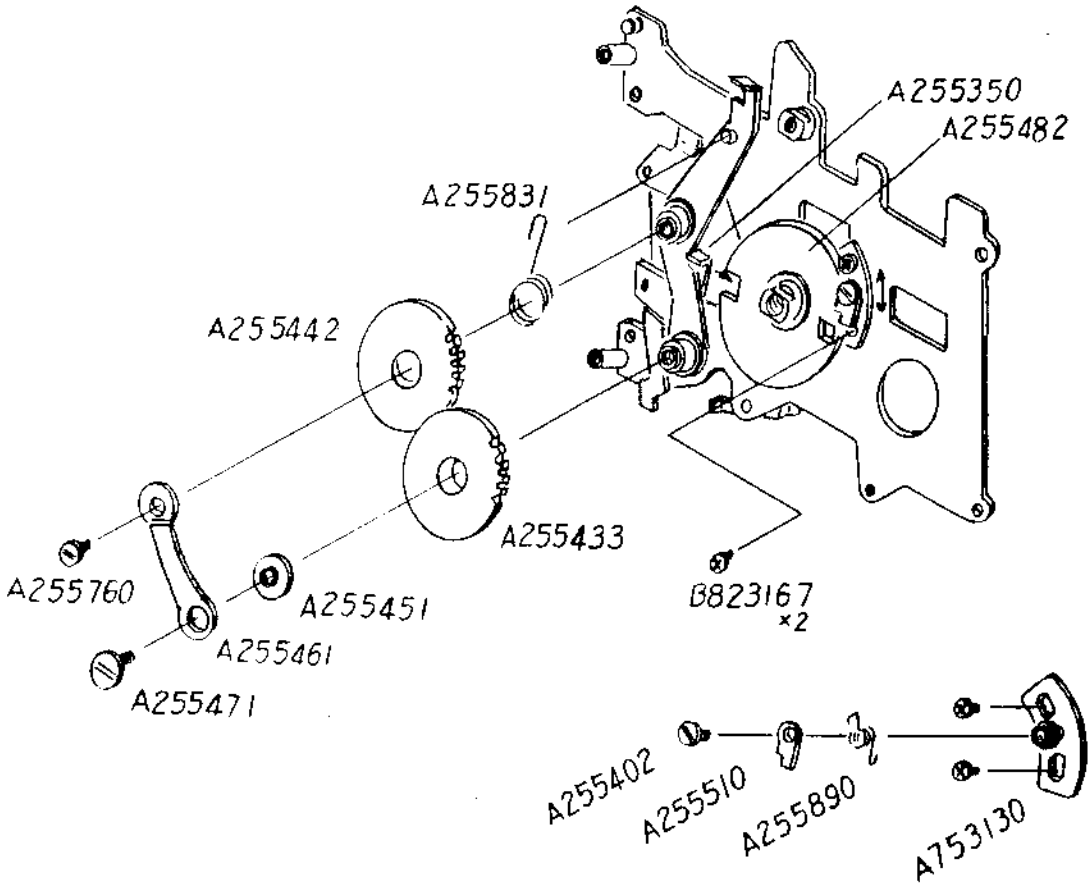
If the cracked transmission gear (A255433) is a white-colored plastic one, exchange it for a metal replacement part.

1) Loosen the connecting gear screw (A255760) and left hand gear arm screw (A255471), detach the upper connecting gear arm (A255461) and exchange the transmission gear.

7. Shutter Release Button cannot be Depressed: Reverse Stopping Claw is Positioned Incorrectly

When the shutter release button is depressed, after completion of the film winding crank action, the upper release safety lever (A255350) should fall into the notched section on the release safety cam (A255482) which will release the shutter. In other words, if the lever is not in the notched section but positioned elsewhere, the shutter cannot be released when the shutter release button is depressed.

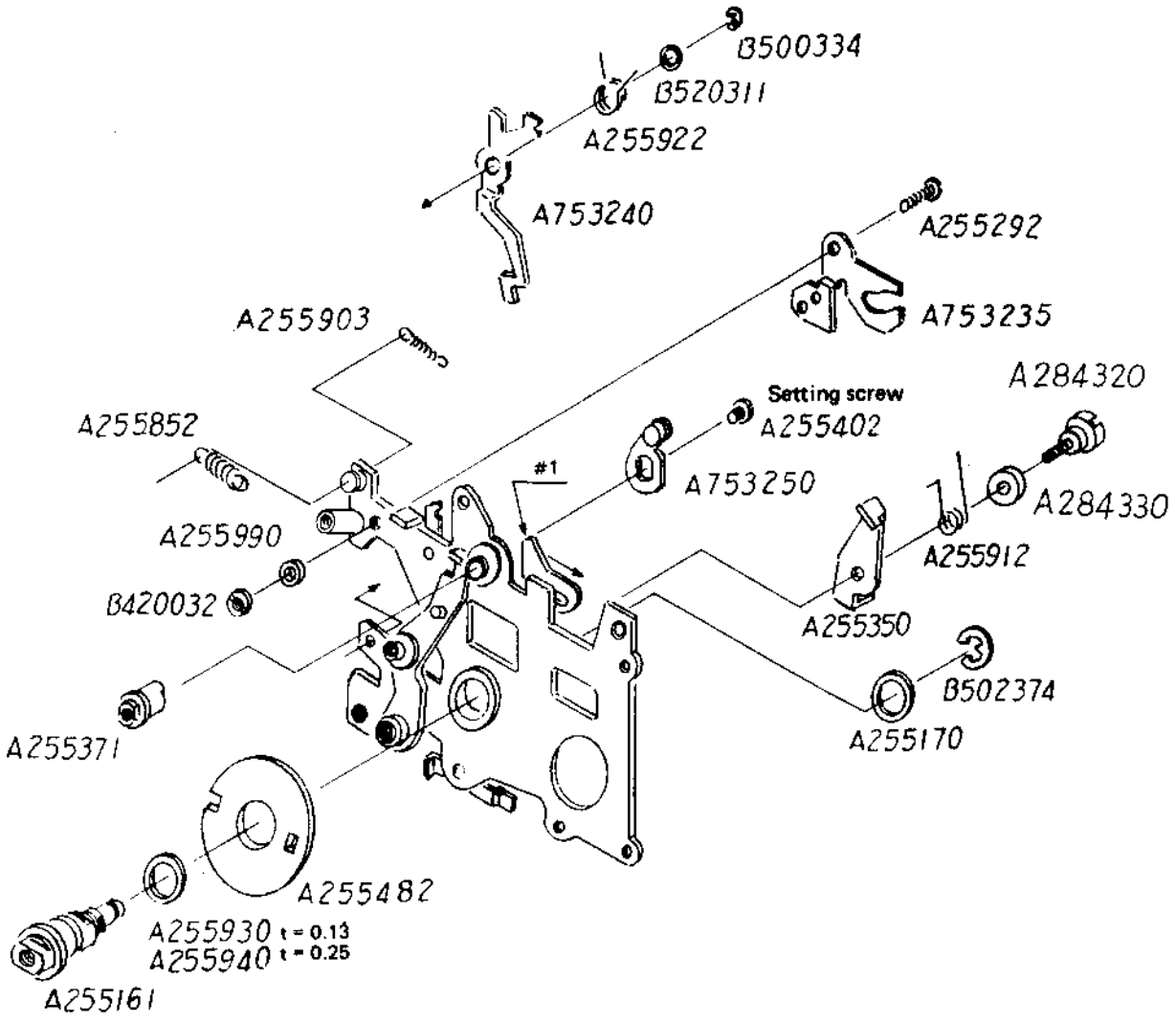
1) Loosen the B823167 screws and adjust the reverse stopping claw mount (A753130) so that the upper release safety lever falls into the notched section on the release safety cam.
   Confirm that the same action also takes place when the winding crank is rotated in the reverse direction, too.



8. Multiple Exposure is not Possible: Setting Screw is Loose

The multi-exposure lever (see page 1) rotates the multi-set lever (A753250) via the multi-lever axle (A255371) and, thereby, pushes the multi-exposure link (#1) forward or in the direction of the lens.

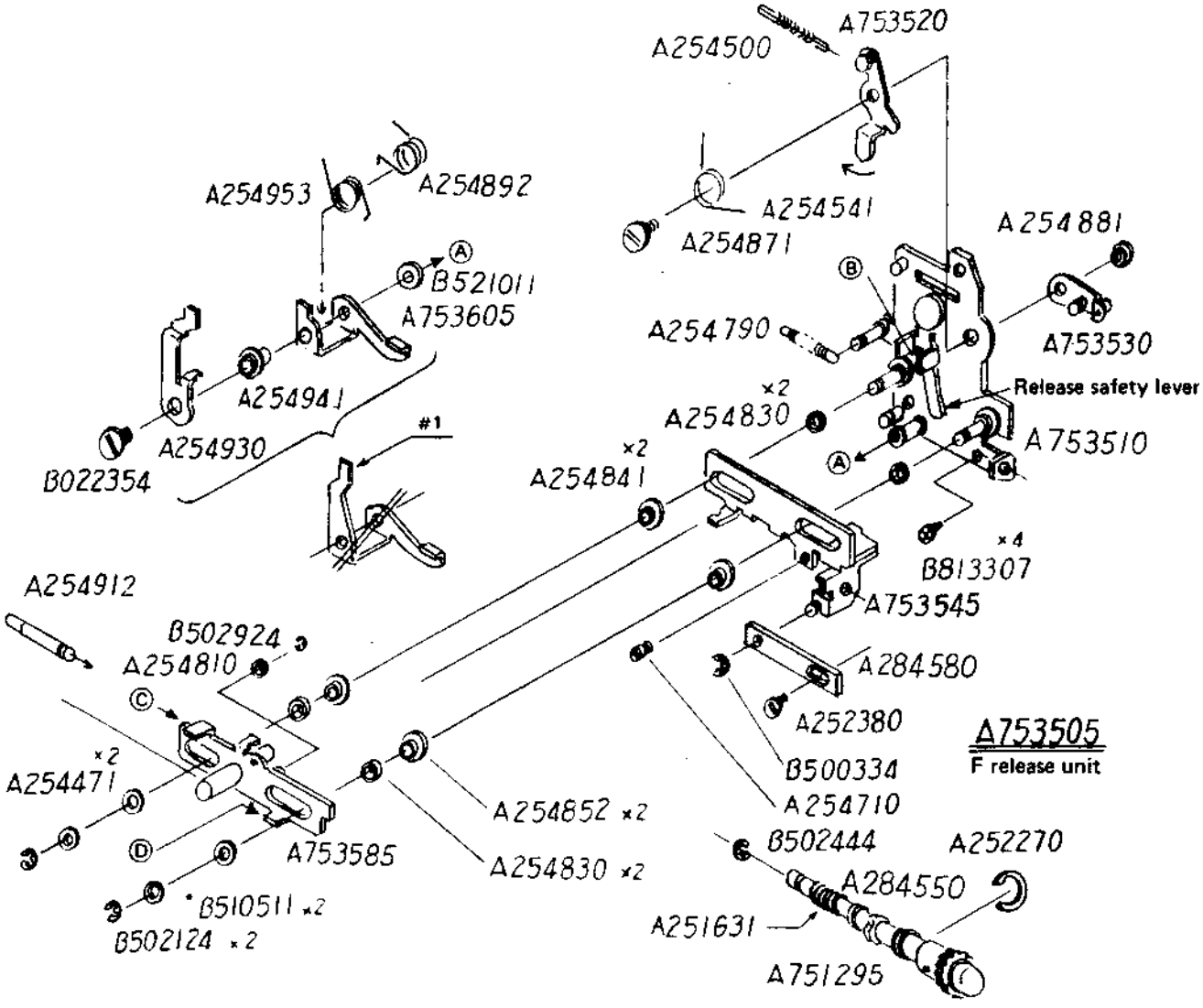
1) The setting screw (A255401) should be fixed securely with Loc-Tite.
2) Exchange the multi-operating lever spring (A255922) when it is unhooked, if its hooking section is deformed.



9. Exchange of the Film Release Unit

F. release unit with an old type winding safety lever (#1) attached should be exchanged completely for a new type one, in order to prevent deformation of the wind stopper pawl (A261391).

1) First, detach the winding base plate assembly, then detach the shutter button stopper ring (A252270, B502444) of the shutter release button set (A751290) and the snap ring (B500334) of the shutter release link (A284580), loosen four B813307 screws and, finally, detach the F. release unit (A753500).
2) Keep the following points in mind when attaching the winding base plate assembly, after attachment of the replacement F. release unit.
3) The upper release safety lever (A255350, see page 7) must fit into (B).
4) The multi-operating lever (A753240, see page 7) must engage (C).
5) The winding stopper lever (A753520, see page 4) must engage (D).
6) The holding claw (A753570) engages the F. release roller (A254810) while the shutter release button is being depressed and prevents the return of the upper F. release plate (A753590) so that there is time for the F. release action to take place. If the holding claw does not engage the F. release roller, then bend the upper F. release lever (A753520) in the arrow-indicated direction.



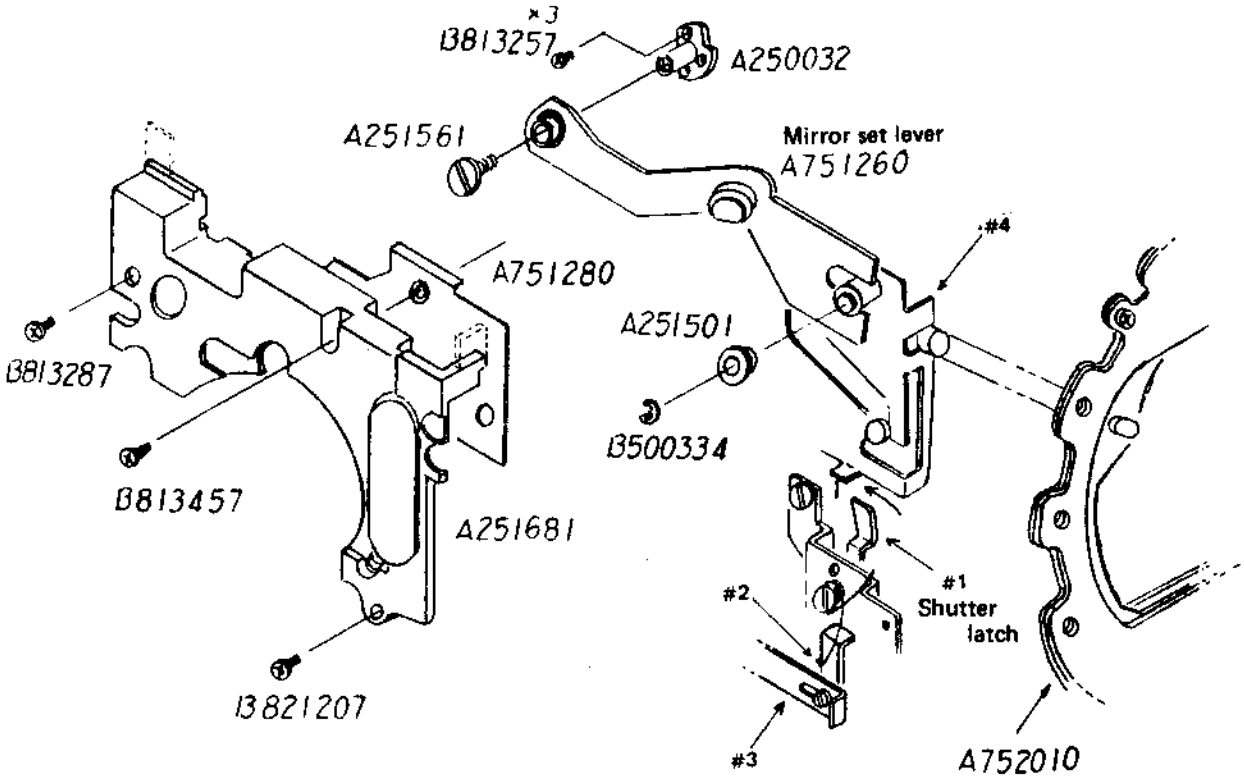
10. Mirror is not Charged: Bent Mirror Set Lever and/or Faulty Action of the Shutter Latch

Reflex mirror swings back up immediately upon completing the film winding crank action.

1) Check action of the shutter latch (#1).
2) Next, loosen screws B813287, B813457 and 8821207 and then detach the light baffle cover (A251681). (The old type light baffle cover also has a protrusion, as indicated by the broken-line part, and, therefore, it will be necessary to loosen the top frame (A755200), also, in this case. Refer to page 19.)
3) Detach the set lever screw (A251561, which has a left hand thread) and take off the snap ring (B500334) and operating plate set roller (A251501). Finally, exchange the mirror set lever (A751260).
4) When exchanging the set lever shaft (A250032) use a part matching the height of the set lever.

CAUTION:

A bent set lever is caused by mistakes made during the insertion of the lens. If the film winding crank action is heavy, when assembling the set lever, therefore, do not force the action. (Refer to page 15" Lens Cannot be Detached".)



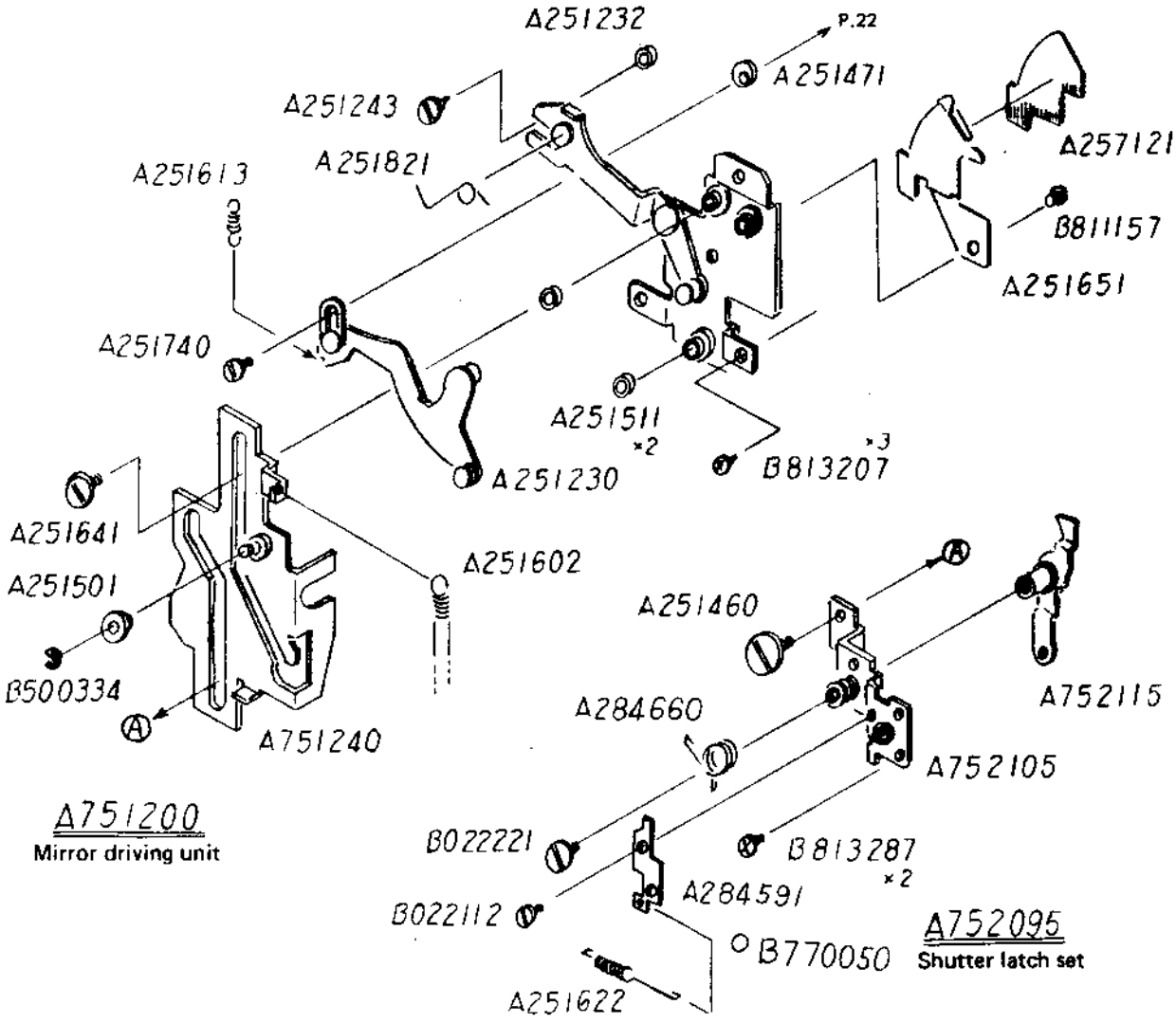
11. Shutter Blades do not Open (I)

The shutter blades close down completely when the shutter release button is depressed, while, at the same time, the reflex mirror swings up. Then, the light-tight plate (A751100) also swings up, followed by the shutter blades reopening and, after the required amount of time, closing completely once more. Should the shutter blades not reopen after the light-tight plate swings up, resulting in an unexposed frame, it should be repaired in the following manner.

1) Exchange the right operating-ring spring (A251601) since it has been strengthened by increasing its wire diameter to 0.26 mm.
2) Exchange the shutter operating ring unit (A752010) (see page 11).

12. Adjustment of the Mirror Arm Adjusting Cam (A251471)

When making the repair noted in "11. Shutter Blades do not Open (I)", position the M. (mirror) arm adjusting cam so that the M. operating plate (#1) moves up and down smoothly.
At the same time, the M. arm adjusting cam should not come in contact with the M. driving lever (#2) when the mirror swings up.



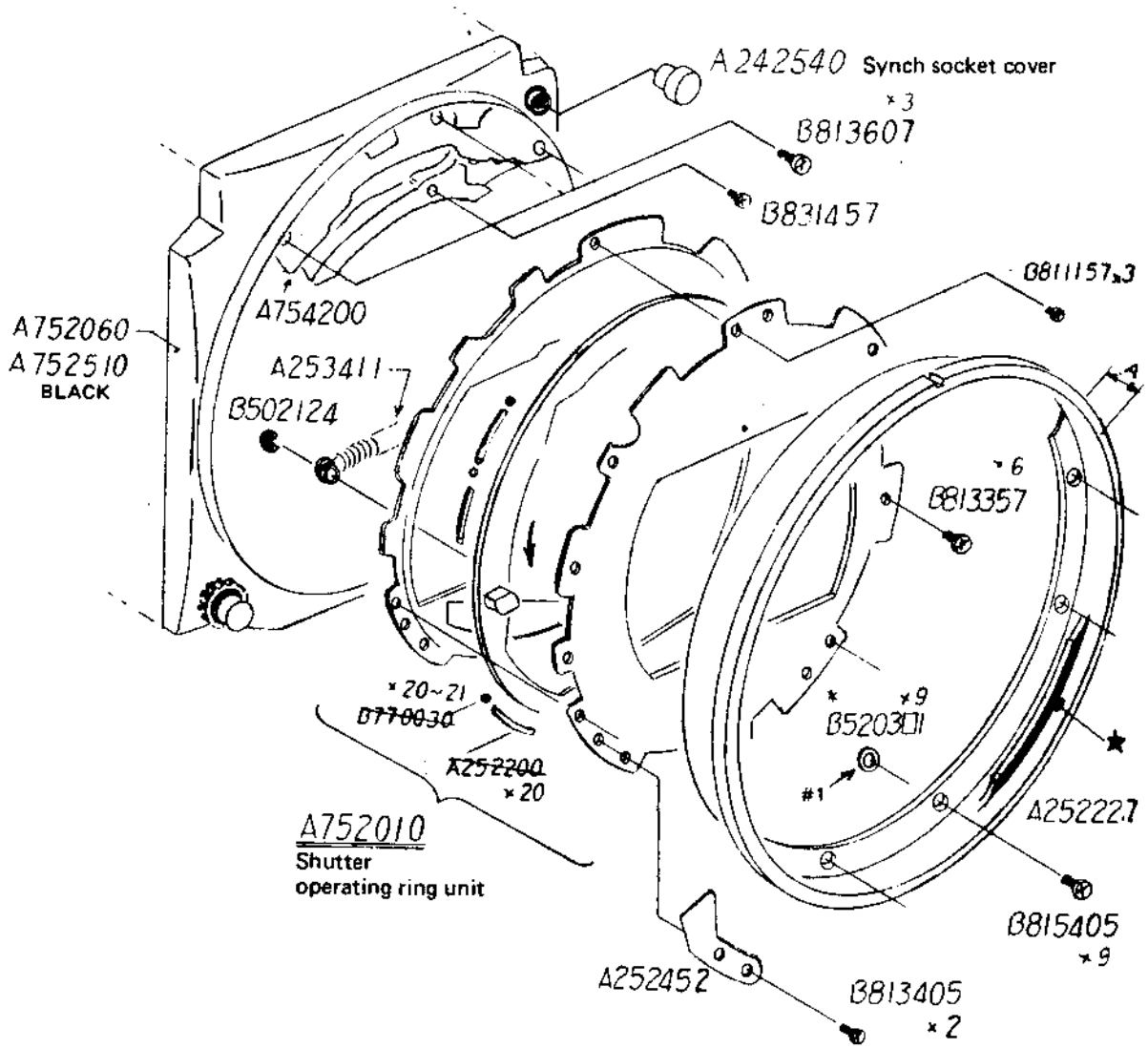
13. Shutter Blades do not Open (II): Rotation of the Shutter Operating Ring Unit is Heavy

With lens detached, check rotation of the S. (shutter) operating ring unit (A752010) in the arrow-indicated direction while maintaining pressure on the shutter release button. If the rotation is not smooth but feels tight or seems to be catching, it should be repaired in the following manner:—

1) Loosen nine B815405 screws and detach the lens mount (A252227). Since the focus adjustment washers (#1) differ in thickness, they must be properly identified so that they can be returned to their original positions when reassembling.
2) Loosen two B813405 screws, three B813607 screws, one B831457 screw and six B813357 screws.
3) Detach the left side cover (see page 12), unhook the operating-ring spring (A253411) and exchange the S. operating ring unit. Use a spring with 55 turns.

Adjust distance from standard attachment plane (surface) to the star-indicated (*) position on the lens mount to 79 mm ±0.03. (Use tooling jigs CT-301, 302 and 303.)

Use care when making the exchange, as there are two types of lens mounts with thickness of 9.6 mm and 9.65 mm at point "A",



14. Detachment of the Left Side Cover Add Shutter Speed Dial Stopper

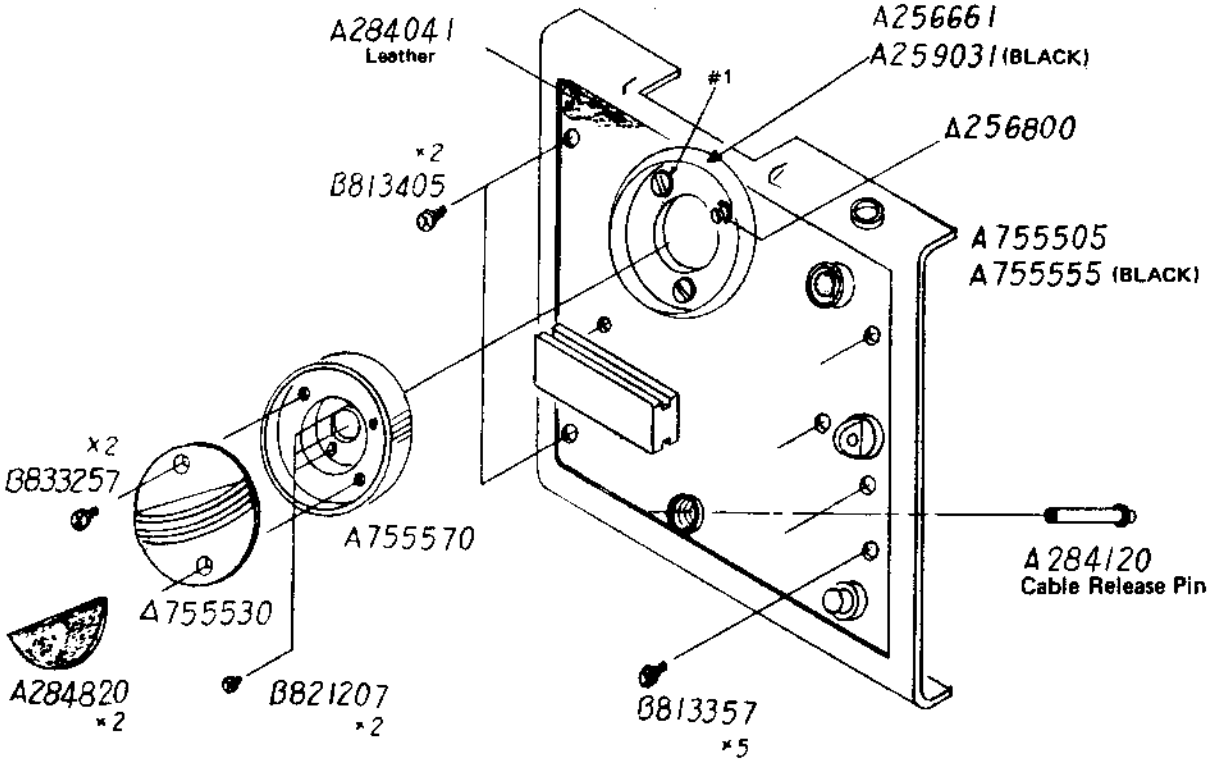
1) Strip the shutter dial cap leatherette (A284000) and loosen two B833257 screws. Then, detach the shutter dial cap (A755530) and loosen two more screws (B821207). Finally, detach the shutter dial knob (A755570).
2) Strip off enough of the left cover leatherette (A284040) to expose the screws, loosen two B813405 screws and five B813357 screws and, then, detach the left side cover.
3) Place the cable release pin (A284120) aside for safekeeping since it will become loose when the left side cover is detached.

Add shutter dial stopper

1) Change one of the setscrews (#1) of the shutter dial cover (A256661) to the shutter dial stopper (A256800) and change the shutter dial knob to part A755570 (which has a stopper pin riveted to it).

Pointers on Assembling

1) Do not forget the cable release pin.
2) The circuit is grounded (earthed) at two points at the front end and, therefore, the left side cover must be fixed with two chromium-plated screws (B813405).
3) As with the right side cover, the left side cover should also not protrude beyond the standard attachment plane (surface).
4) Do not cause short-circuits by pinching the wires.



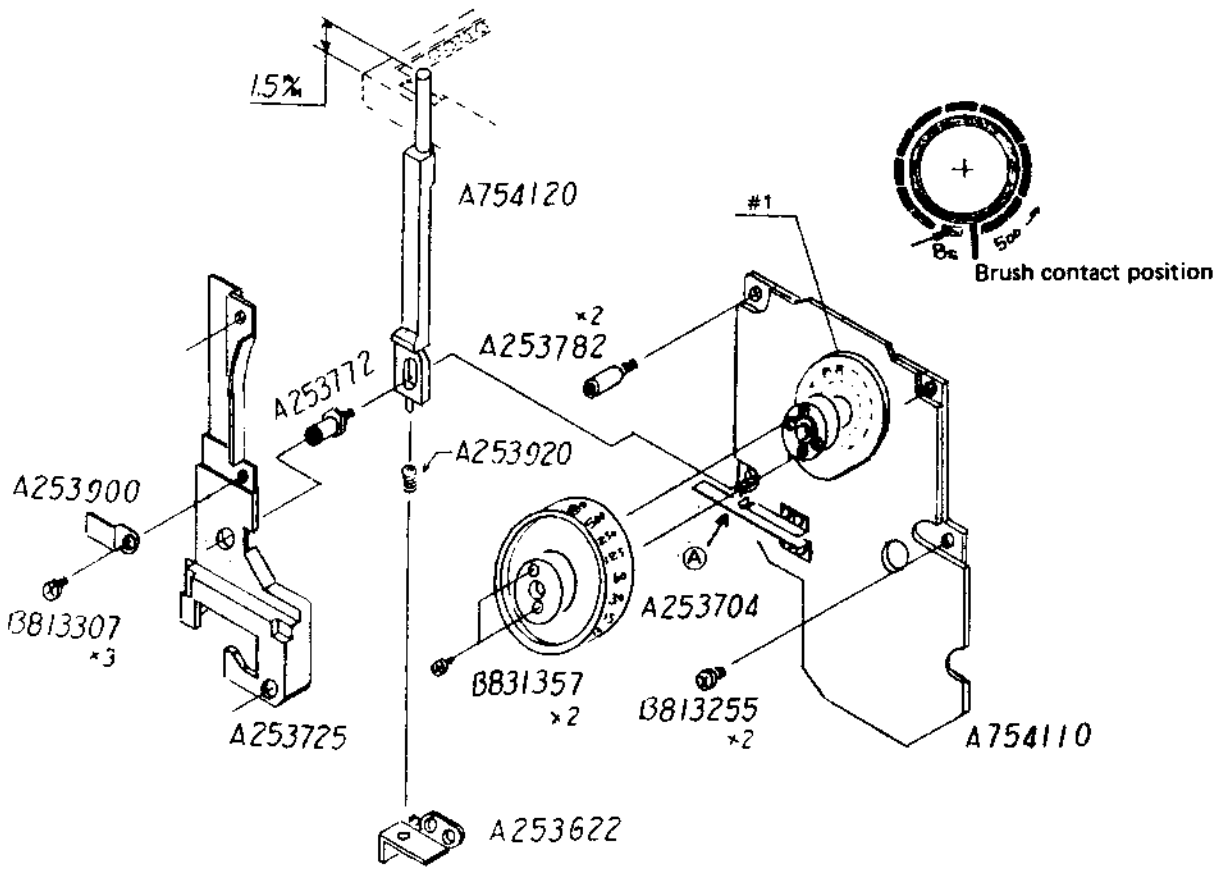
15. Shutter Speed Becomes 1/500 Second

The switch of the shutter circuit (A754100) is ON because the AE changeover rod (A754120) is pressed up by the strength of the AE changeover rod spring (A253920). However, when the AE Finder is attached, the AE changeover rod is pressed down and the switch is turned OFF, with the shutter circuit then becoming inoperational.

1) Is the AE changeover rod protruding 1.5 mm above the top frame?
   If not, rehook the spring (A253920) to adjust.
2) Is it possible that the switch of the shutter circuit is OFF?
   Confirm ON/OFF operations of the switch by pushing the tip of the AE changeover rod. If OFF, bend the contact plate (A) to make the necessary adjustment.
3) Check for defect in the wiring circuit. See page 26.

16. Relation of the Shutter Speed Dial and Shutter Speed Setting

1) Rotate the shutter dial click plate #1 and coincide its brush contact to the 8 second position (see drawing of pattern). Then, attach the shutter speed dial (A253704) with its 8 second setting at the top position.



17. Detachment of the Lens

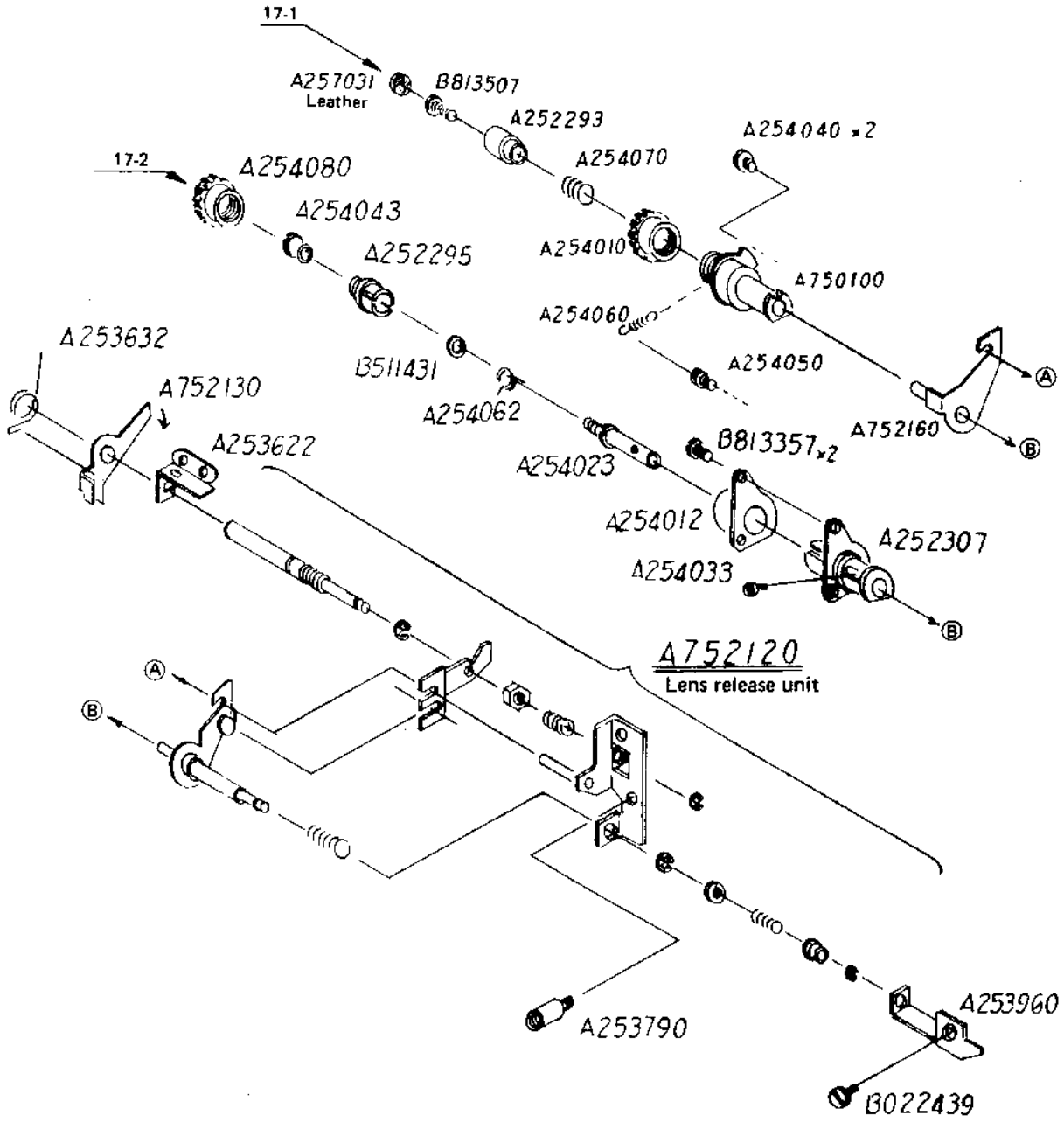
Detachment of the lens differs with the cameras or, in other words, there are two systems, or 17-1 and 17-2 illustrated below. The two systems are easily differentiated by whether the lens release button has a leatherette covering or not.

17-1 Lens release button has leatherette covering.
Turn the film winding crank fully and charge the shutter. Rotate the lens release button locking ring (A254010) and depress the lens release button (A252293) while keeping the ring rotated. Finally, rotate the lens and detach.

17-2 Lens release button is not covered.
Turn the film winding crank fully and charge the shutter. Rotate and depress the lens release button (A254080). Detach the lens.

CAUTION:
To repair defects in the 17-1 system, change completely to the new 17-2 system.

When the film winding and shutter charging operation is completed, the lens safety lock (A752130) is pushed by the S. operating ring unit (A752010), with the result that its hook section is then slipped off the lens button latch (#1), thus making it possible to depress the lens release button. When it is not possible to complete the film winding and shutter charging operation in the normal manner, push the lens safety lock with your finger which will make it possible to detach the lens.

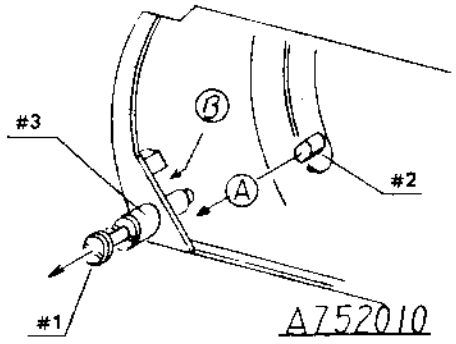


18. Lens cannot be Detached

When it is not possible to depress the lens release button, the trouble is due to deformation of the mirror set lever originating from rotation of the film winding crank when the #2 pin is not in the (B) section in the normal manner. The #2 pin will be located in (A) section, at such times.

In order to remove the lens, in this case detach the focusing screen and undertake the following operations from the top of the body.

1) Pull the setscrew (#1) in the arrow-indicated direction. Confirm that the #2 pin returns due to spring tension and enters (B) section.
2) Rotate the film winding crank fully, until it stops.
3) Then, remove the lens according to either 17-1 or 17-2, as explained on the previous page.
4) If the lens cannot be removed in the above case, use a screwdriver and push #3, while repeating the operations noted above.
5) If the mirror set lever is bent because of the above trouble, repair as explained on page 9. Or, if movement of the #1 pin is not proper, when checked, exchange the S. operating ring unit (A752010), as explained on page 11.



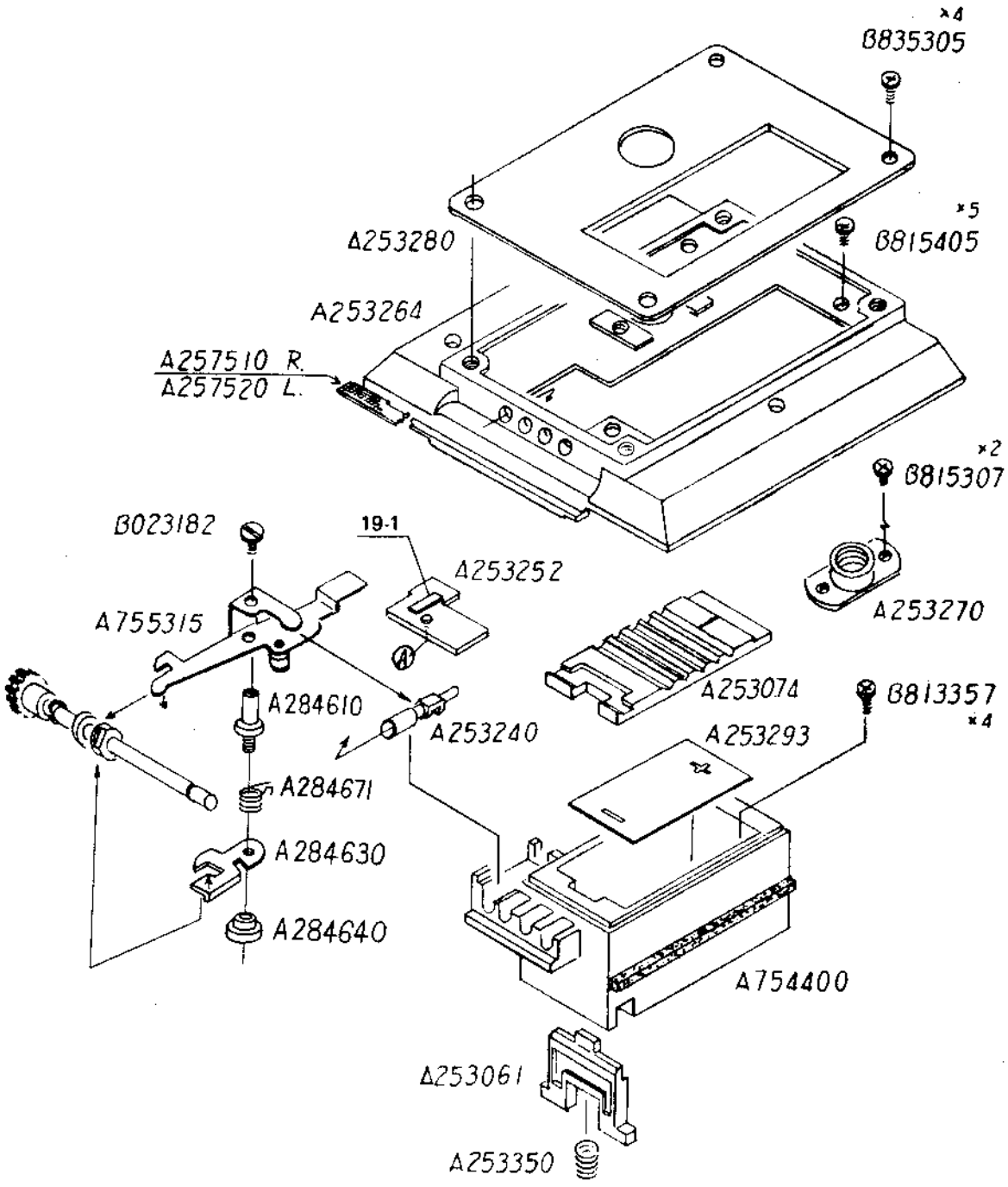
Shutter operating unit

19. Shutter Release Button does not Return

1) The speed-grip shutter release rod (A253240) is jammed in the hole on the bottom cover (A253264).
2) The release lever (A755315) is on top of the release rod (A751290) and disengaged.
3) The lower F. (film) release plate (A753550) is on top of the release safety lever (see page 8) and, therefore, disengaged.

Repair

1) Exchange the MD (motor drive) connector cover (A253252) for a new part in which a protrusion has been added at the section indicated as (A) in the drawing. When making the exchange, however, attach liners with bonding agent, eliminate looseness in the speed-grip shutter release rod and, at the same time, align the rod properly to the hole on the bottom cover.
2) Bend the tip of the release lever downwards so that it does not become detached from the grooved section in the release rod.
3) Turn the tip of the release safety lever (see page 8) upwards.
4) Bend the edge of Shutter Button Lock Claw (1-284630) to upright direction if Shutter Button Lock Claw comes out position in the groove of Release Button Set (1-751295).



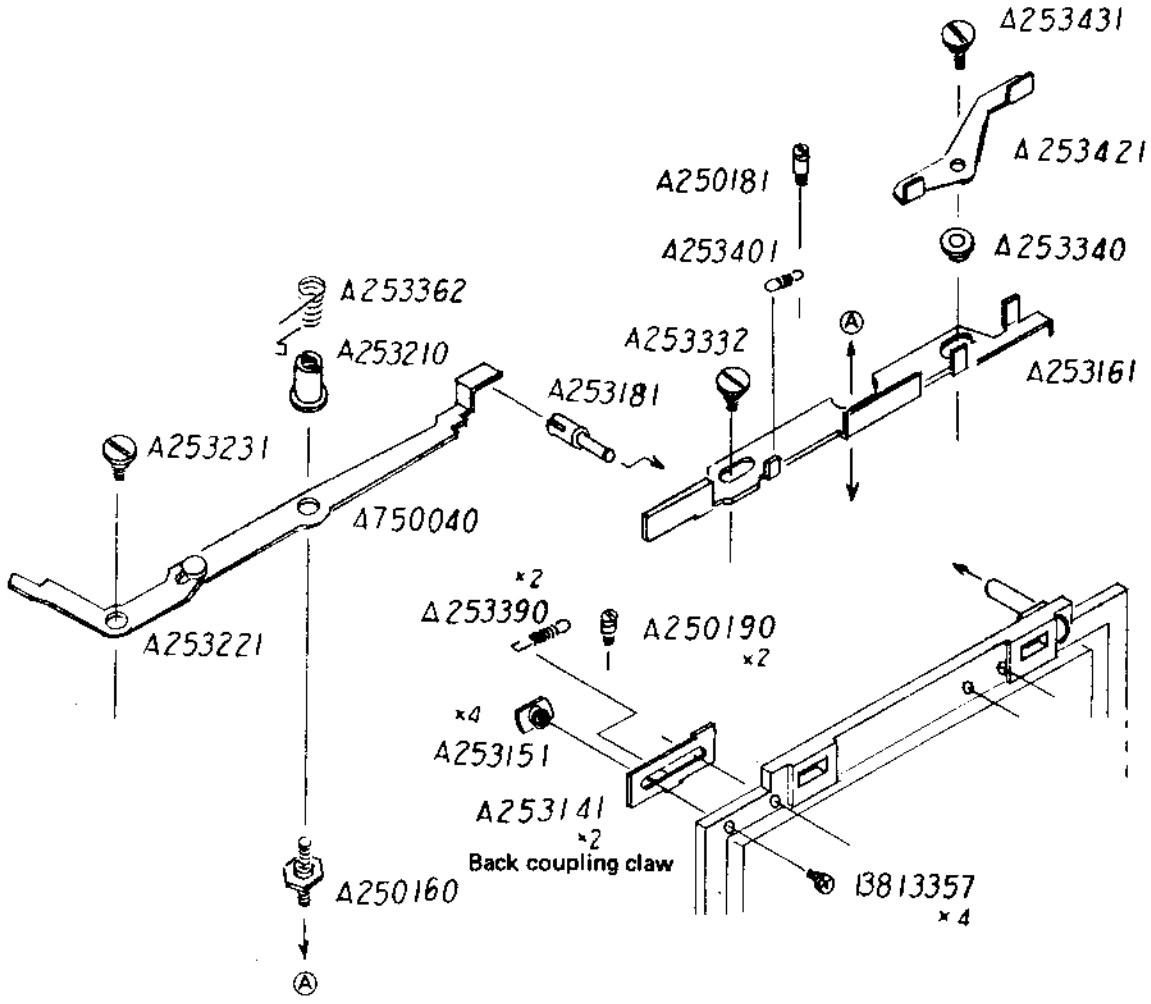
20. Film Back cannot be Connected: Back Coupling Claw is Bent

Back coupling claw (A253141) does not slide laterally and, therefore, becomes bent when pressed by the back coupling link on the film back side.

1) Exchange the back coupling claw the coupling claw guide (A253151). Apply Loc-Tite to the 8813357 screw and fix securely.

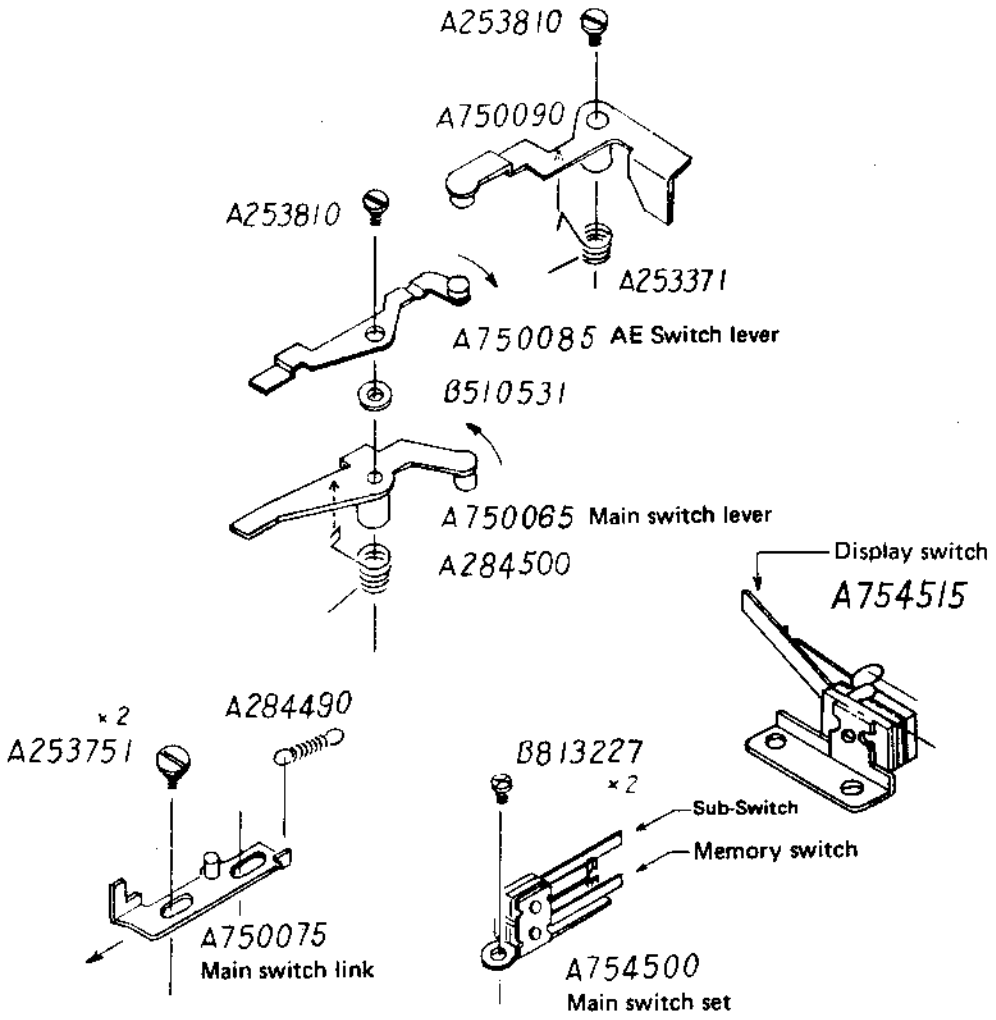
CAUTION:

When the dark slide is inserted fully into the film back, the dark slide connecting pin (A253181) is pressed by the dark slide, which results in the dark slide safety latch (A253221) pushing the lower F. release plate (A753550) and preventing depression of the shutter release button.



21. Action of the Main Switch Set

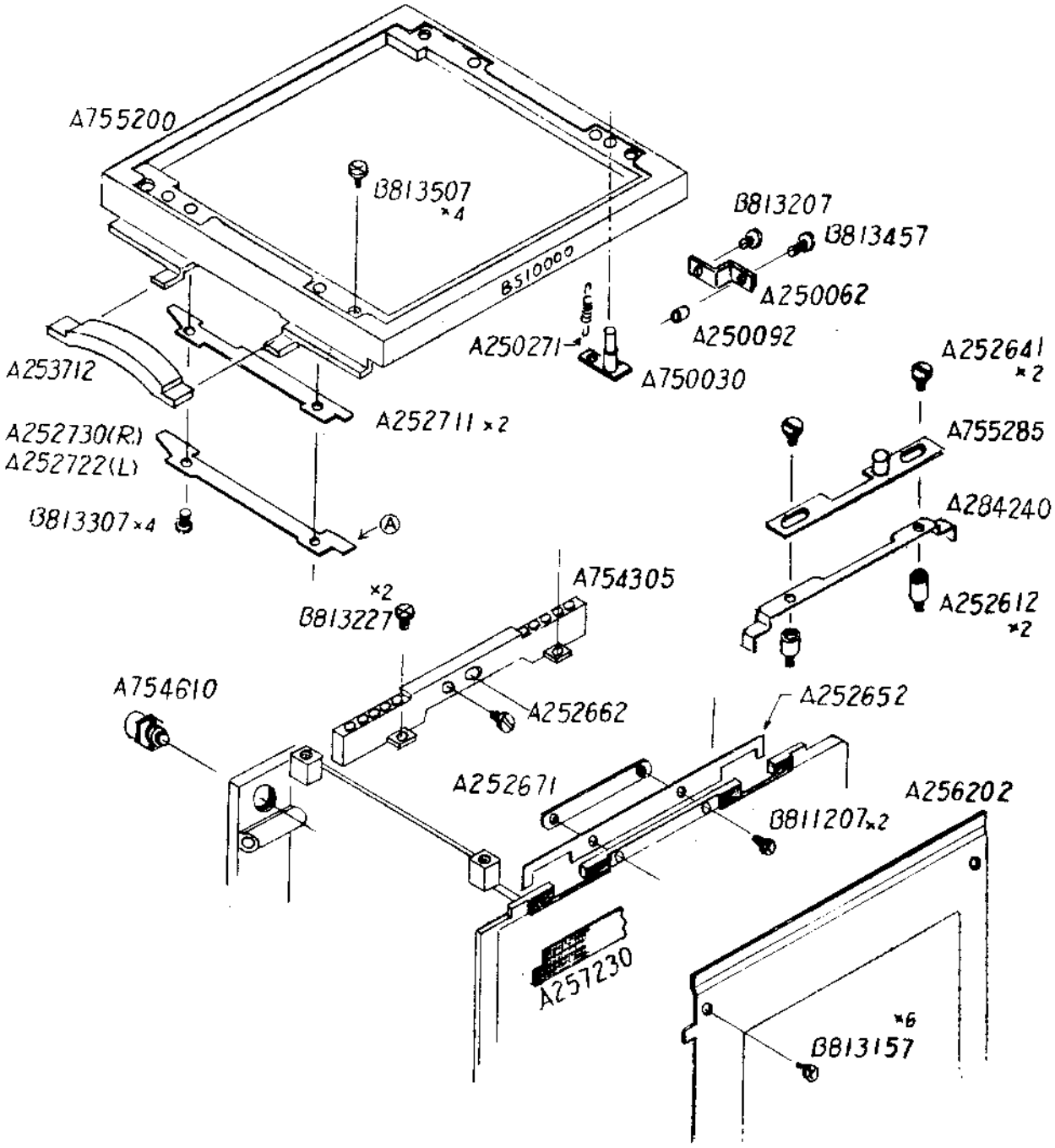
1) When the film winding and shutter changing operation is completed, the main switch link (A750075) is pushed in the arrow-indicated direction while the main switch lever (A750065) is also moved in its arrow-indicated direction, by the action of the S. operating ring (A752010), as noted on page 11. This results in the memory and display switch becoming ON (the sub-switch remains OFF).
2) When the shutter release button is depressed, the AE switch lever (A750080) is pushed in the arrow-indicated direction, through the medium of the release lever (A755310), as noted on page 16, which results in the sub-switch becoming ON. At the same time, the main switch lever is returned to its original position, with the result that the memory and display switch becomes OFF.
3) Locate the main switch set (A754500) or bend the contact plates so that the above-mentioned actions are completed in about one-half of the stroke between the time of depressing the shutter release button and the start of the reflex mirror action. (Testig tool A754505-PT)



22. Waist-Level Finder cannot be Attached: Mount Springs are Bent

1) The finder cannot be attached because the finder mount spring (A252722) is deformed at point A.
   Loosen the left and right side covers, detach the top frame (A755200) and exchange the finder mount springs.

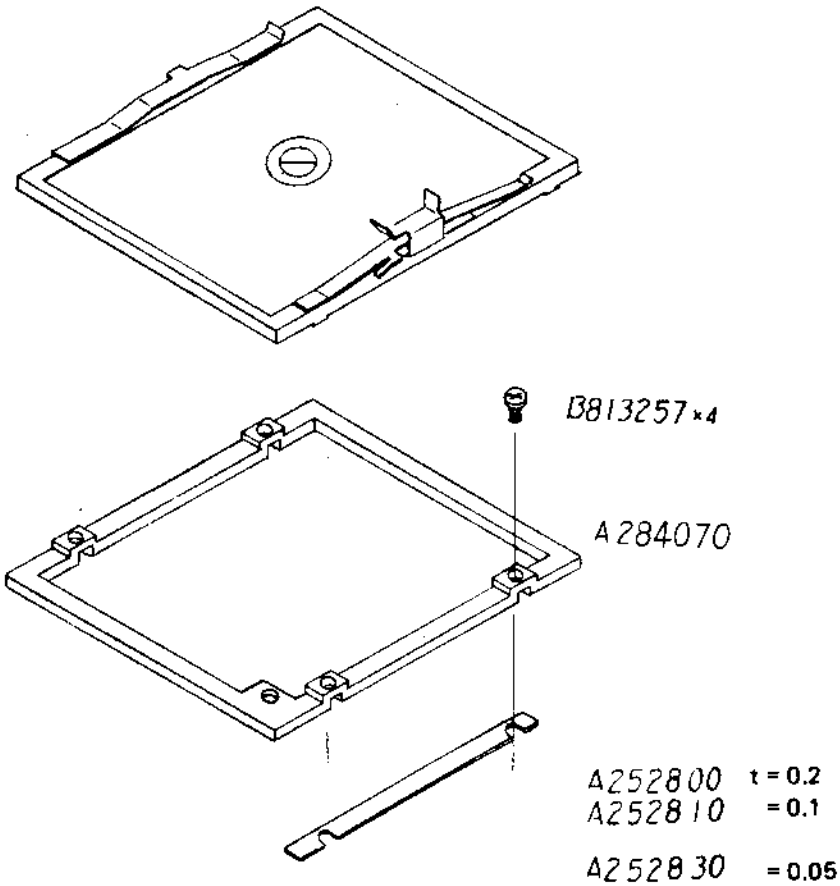
CAUTION:
The part of the top frame with numbers engraved on it should not protrude above the standard attachment plane (surface).
Align the finder lock pin (A750030), AE changeover rod (A754120) and hole.



23. Adjusting the Focus of the Focusing Screen

1) Coincide the reflex mirror to the 45° position (see page 23).
2) Adjust the height of the frame gate by increasing or decreasing the adjusting liners inserted below the frame
3) Loosen four screws and adjust the height of the frame gate (A252522) by increasing or decreasing the number of adjusting liners inserted under the frame gate.

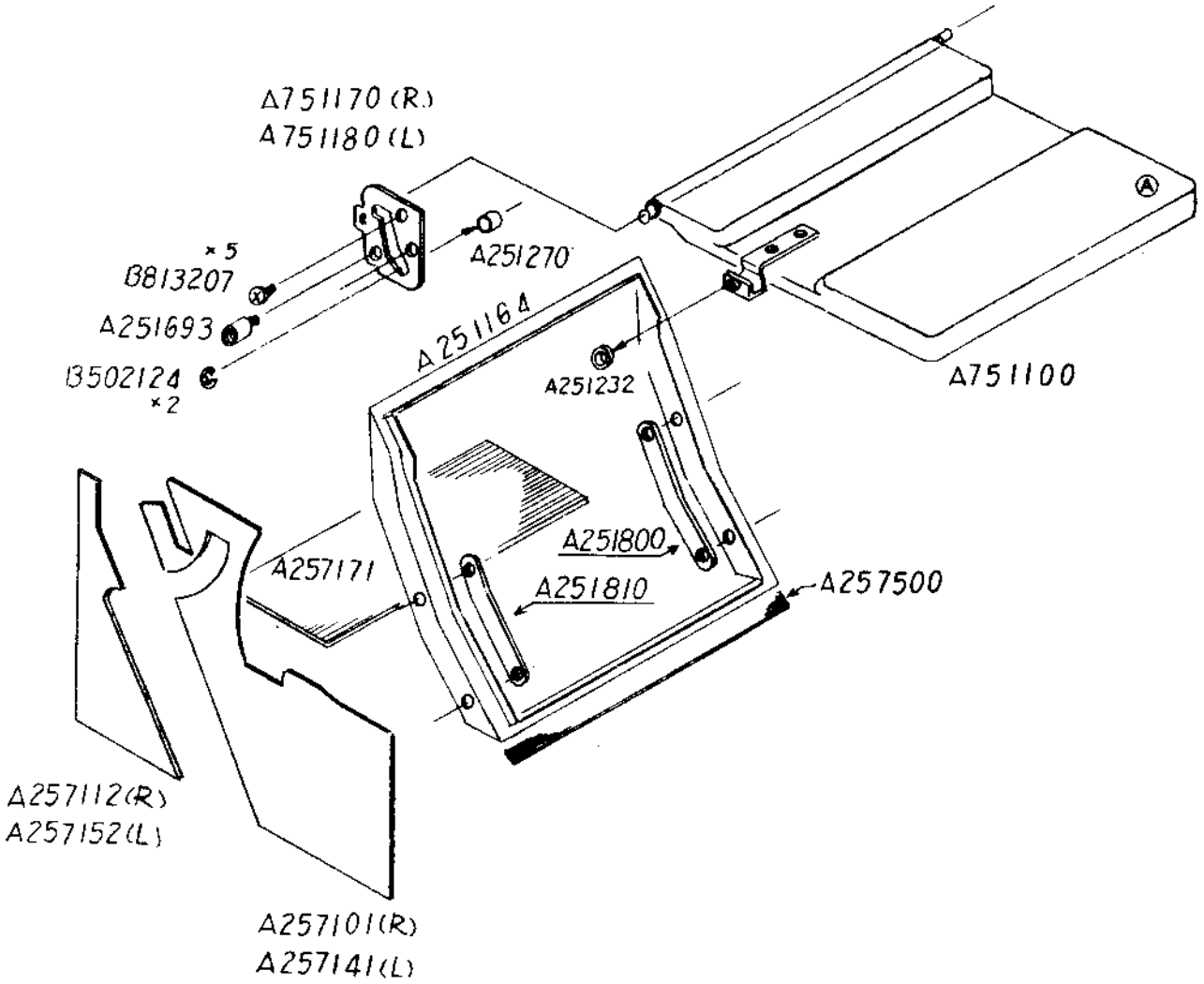
CAUTION:
The 45° position of the reflex mirror and the adjusting liners inserted under the frame gate have already been precisely adjusted in the factory and, therefore, should not require adjustments. Confirm that they are really out of alignment before making the above adjustments.



24. Reflex Mirror Light-Tight Plate

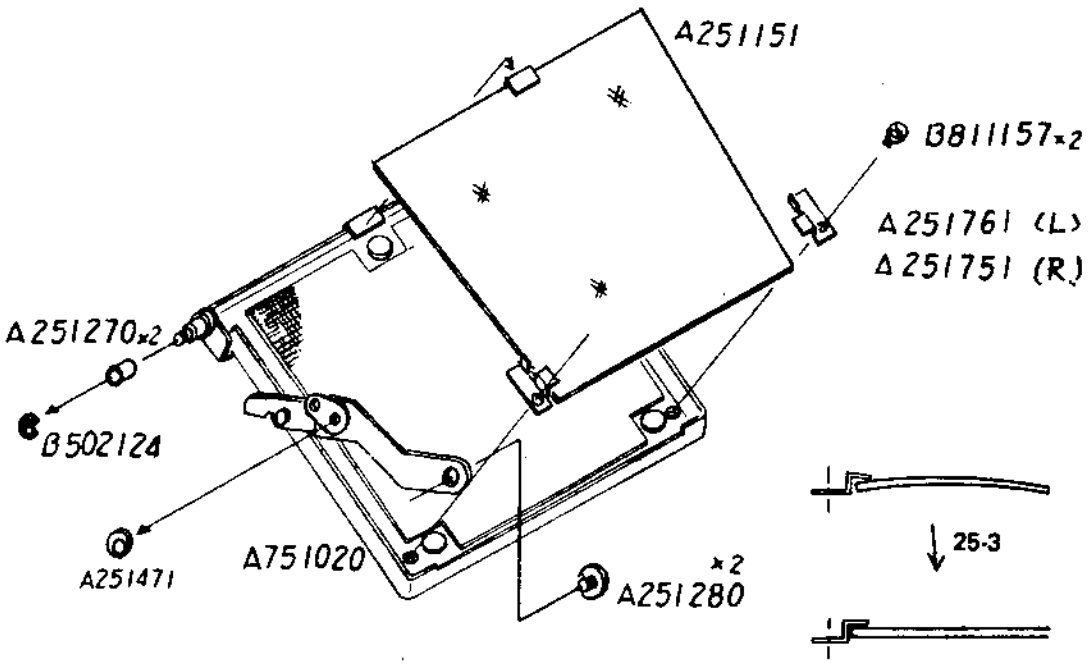
Light to the film plane is shut out by the rear light-tight frame (A251164) and the light-tight plate (A751100).

1) If the leading end of section (A) on the light-tight plate is not contacting the mirror frame, when the light-tight plate is in the up position, then exchange the spring (A251821, see page 10).



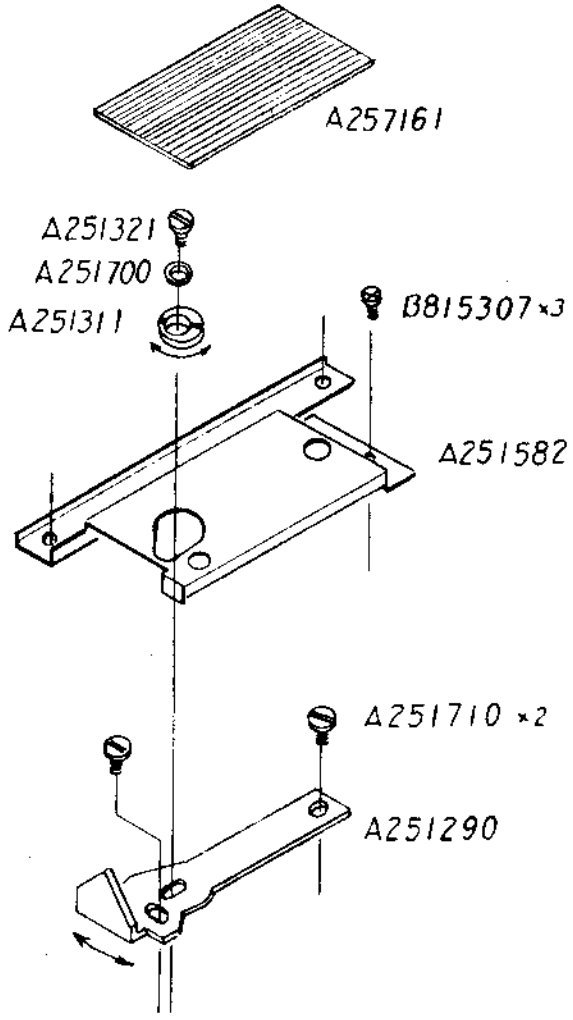
25. Exchange of the Reflex Mirror

1) Loosen two B811157 screws of the mirror holders (A251751 and A251761) and detach the mirror. (Support the mirror frame by its rear surface in order to prevent warping.)
2) Place the mirror holders against the side surfaces of the mirror and tighten the screws so that lateral looseness or movement in the mirror is completely eliminated. When tightening the screws, however, support the mirror frame (A751020) by its rear surface, with your free hand, in order to prevent warping.
3) The bent sections of the mirror holders may also be adjusted, i.e., bent more or bent less, as illustrated, to prevent warping of the mirror. (Since there will be differences in the focus and the sharpness of the finder image, depending on how much the screw is tightened or loosened, both these points should be confirmed before making it final.)



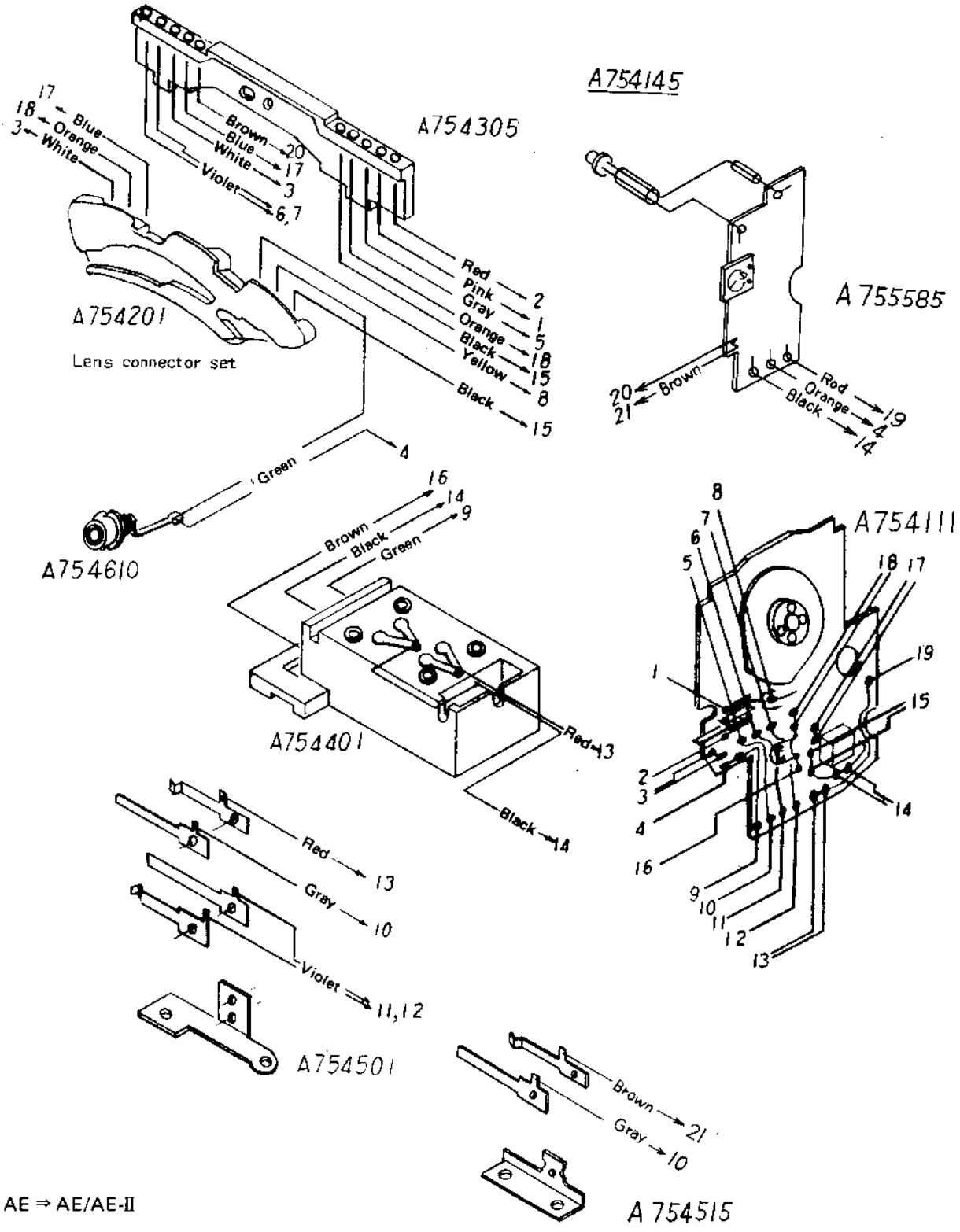
26. Adjustment of the Mirror Frame to 45°

1) The stopping location of the mirror frame can be changed variably, by rotating the mirror adjusting collar (A251311) which will have the effect of moving the mirror stopper (A251290).
   The mirror stopper screws (A251710 x 2) should be tightened when the mirror is properly located at the 45° position. (Do not loosen the mirror adjusting axle A251321.)
2) Since the camera is already precisely adjusted, the screws should not be tightened or loosened without good reasons.



27. Wiring Diagram (III)

When one red-colored lead wire is connected to the checker contact case (A754131), the numbered wires should be connected to same numbers in the shutter circuit (A754111).



※ AE ⇒ AE/AE-II

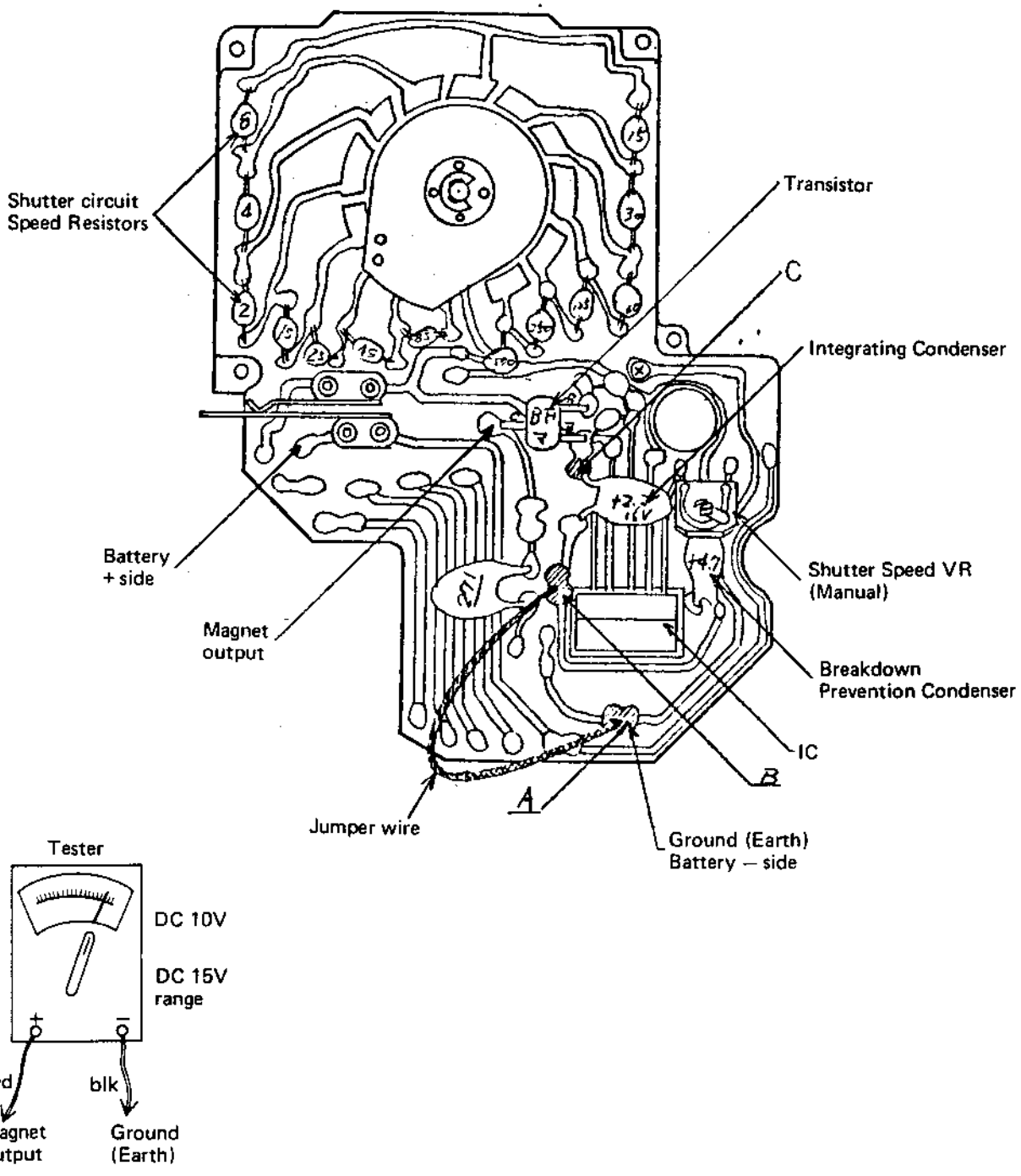
28. ETRS Electronic Control Circuit Repair Manual

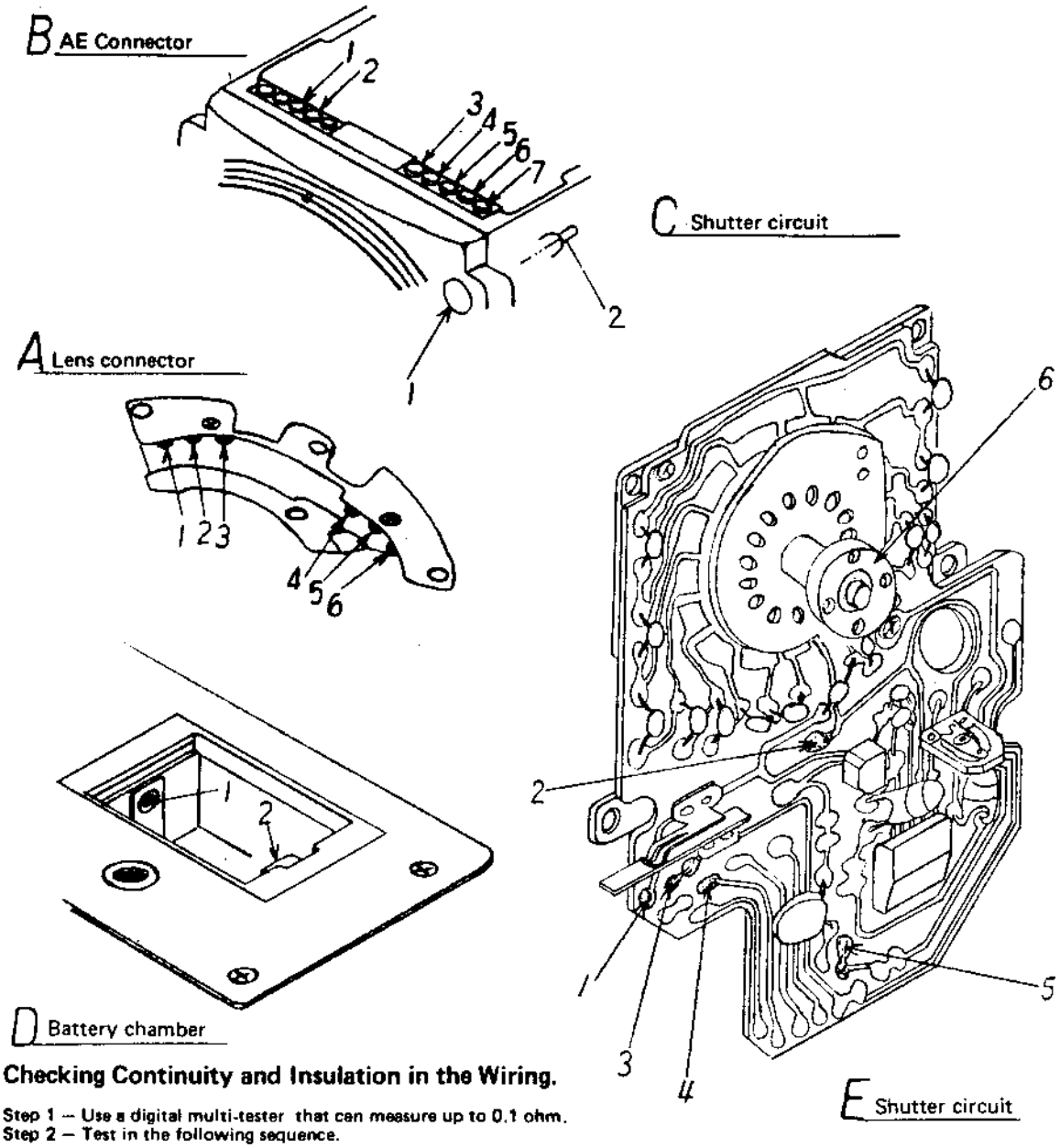
1. When the electronic control circuit is defective, it is possible to consider the following troubles:—
   a) Shutter stays open,
   b) Shutter operates at 1/500 sec. at all shutter speed setting and
   c) Shutter stays open or operates at 1/500 sec. on some of the shutter speed settings only.
2. If the shutter speed settings are not accurate, they can be adjusted with the "shutter speed VR (variable resistor)" in the illustration but a "shutter speed tester" will be required for this purpose.
   Approximate adjustments are, however, possible in the slow shutter speed settings of 1S, 2S and 4S, without such equipment.
3. First, use a tester and check whether the electronic control circuit is working normally or not. If the tester indicates normal operation, there is no reason for exchanging the electronic circuit 733.
4. The actual checking procedure of the electronic control circuit, in the above case, is as follows:—
   1) Take off the left side cover and remove the lens from the lens mount.
   2) Connect point A with point B, with a jumper wire, as shown in Fig. 1.
   3) Insert the battery into the battery chamber without mistaking the polarity.
   4) Set the range of the tester for DC 10V to DC 15V. (Voltage used is 0 to 6V.)
   5) Place the red lead on the Mg (magnet output) terminal and the black lead on the ground (earth) terminal, as shown in Fig. 1.
   6) Without making any change in the above conditions for 5), use a pincer and short-circuit point C and point B.
   7) Without making any change in the above conditions for 5, now remove the pincer away from the points.
5. The reading on the tester for 6), in the checking procedures above, should be within the range 5V to 6.3V. When the pincer is taken away in 7), in the above procedures, check whether the reading on the tester becomes 0 after an elapse of time equal to that of the shutter speed setting set to the shutter speed dial. Or, in other words, the actual shutter speed will coresspond to the time it takes for the tester reading to change from 6V to 0, when the C-B short-circuit in 6) is terminated in 7).
   It can be seen, from the foregoing, that this test is possible only when slow shutter speeds from 1S to 4S are set to the shutter speed dial.
6. If the time-elapse can be confirmed in 5 above, then the 733 electronic circuit can be considered as operating normally.
7. In Fig. 1, the top group of resistors from 8S to 500 are the fixed resistors which determine the shutter speed setting. Thus, for example, if the resistor 30, in this group, is detached from the circuit board due to defective soldering, etc. the shutter speeds 1/500 sec. to 1/60 sec. will operate normally but the shutter will stay open at the other settings from 1/30 sec. to 8S. In other words, the shutter speeds on the slow side of the resistor detached from the circuit board will all stay open. Thus, for example, should the resistor 500 be in the OPEN condition, the shutter will stay open on all shutter speed settings.
8. If the 733 electronic circuit is operating normally, it is also possible to consider troubles due to mistaken wire connections, short-circuiting between wires and breakages in the wire and these troubles should be checked according to the following "Attached Sheet" which is also the general procedures followed on the Zenza Bronica assembly line. A to D
9. If the tester reading for 5 shows an incorrect shutter speed setting and the checking procedures in 4, 5, 6 and 7 indicate that the circuit board is defective, exchange the circuit board.
   If the circuit is then found to be operating normally (with the new circuit board), then check the wiring circuit as noted in 8.
10. The wiring diagram shown in Fig. 1 may or may not have the "breakdown prevention condenser" or the "pull-up resistor", which are additional parts which have been added for preventing the following specific troubles.
    a) Breakdown prevention condenser:
       The shutter remains open at all shutter speeds or at the slow 1S to 8S speeds when the shutter is released with the electronic flash unit connected to the camera but returns to normal operation upon detaching the electronic flash unit.
       * The breakdown prevention condenser is not supplied for repair purposes but the circuit board can be exchanged completely. Defects run about one per thousand.
    b) Pull-up resistance 8.2 kilo ohms:
       Voltage is about 6.3V when the battery is still new. The shutter remains open while the battery voltage is high but returns to normal operations when the voltage falls to 5V.
       * The pull-up resistor is also not supplied for repair purposes but the circuit board can be exchanged completely. Defects run about one per 150.

CAUTION:
If the shutter remains open even when the electronic flash unit is disconnected and/or when the battery voltage falls to 5V, the origin of the defect cannot be considered as being the same as for the above two defects. Therefore, the circuit should be checked as per 4 to 8 for other reasons.

11. When checking the wiring circuit according to page 28, the reading should be less than 0.1 ohm. However, this cannot be measured and, therefore, simply check for continuity or whether the scale reading is almost 0 or not.

Electronic Control Circuit





Checking Continuity and Insulation in the Wiring.

Step 1 – Use a digital multi-tester that can measure up to 0.1 ohm.
Step 2 – Test in the following sequence.

Sequence	Test Point (1)	Test Point (2)	Checking Points
1	A-1	B-1	Continuity less than 1 ohm.
2	A-2	B-4	– ditto –
3	A-3	B-2	– ditto –
4	A-4	E-4	– ditto –
5	A-5	C-2	– ditto –
6	A-6	B-3	– ditto –
7	A-6	C-1	Must be insulated.
8	A-6	E-6	Continuity less than 1 ohm.
9	B-5	E-5	– ditto –
10	B-6	E-3	– ditto –
11	B-7	E-2	– ditto –
12	D-1	D-2	Must be insulated
13	D-1	E-2, E-3	Continuity less than 1 ohm.
14	D-2	E-6	– ditto –

Using regular Tester, check insulating condition between 1/8 and 1/15 on shutter dial. Apply each output terminals of the tester to E2 and E6.
Then turn the shutter dial 2 or 3 times to both directions from 1/8 and 1/15 position and make sure insulating condition.
Continuity in all instances is less than 1 ohm. If more than 1 ohm, check very carefully for poor soldering connection or for a break in the wire.

29. Click Position and Operation of Shutter Button Ring (Fig. 3)

Shutter release button should operate in the following table in accordance with click positions of shutter button ring.

Position	Operation
A	Shutter release button, cable release & bottom release function
B	Shutter release button lock, and rest function
C	All lock

If above operations do not function properly, check following points;
1) Movement of click spring (A284591) and ball (B770050).
2) Movement of release lever (A755315) and S. button lock claw (A284630).

If one of above check points do not function properly, proceed as follows;
1) Is ball (B770050) in certain position?
   Make sure that the ball moving smoothly when right side cover removed. If the ball and cover being in contact when put the ball in higher position, give slight space between ball and cover.
2) Check the movement of release lever (A284620). Then check the movement of S. button release shaft (A284550). Using cable release, depress until it stops, then return it gently. At this time, if release shaft is sticky and won't return, lift up release shaft slightly. If this makes release shaft (A284550) return, replace it with longer one (A284551).

If above will not work, place a washer between camera body and S. button unit (A751295). In other words, restrict the play between camera body and S. button unit. Be careful not to take the play away completely so that the click movement of button ring will not become too stiff. (Fig. 1)

3) If the edge of S. button lock claw (A284630) is in contact with the grooved portion of shutter button ring unit (A751295), file down the grooved portion. When file down, turn button ring towards "B" click slightly. (Fig. 2)

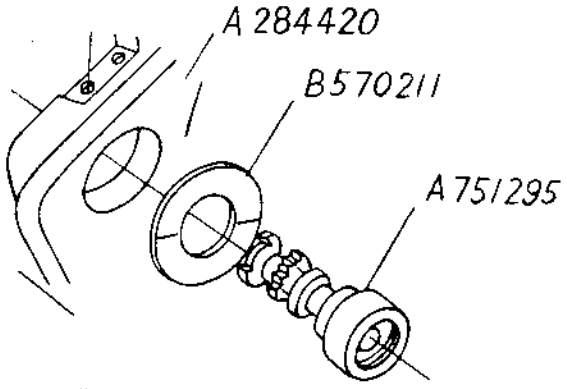
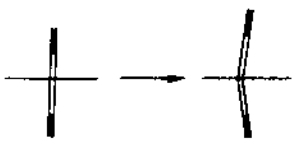


Fig. 1

Note: At Fig. 1, bent washer (B570211) as illustrated when insert.



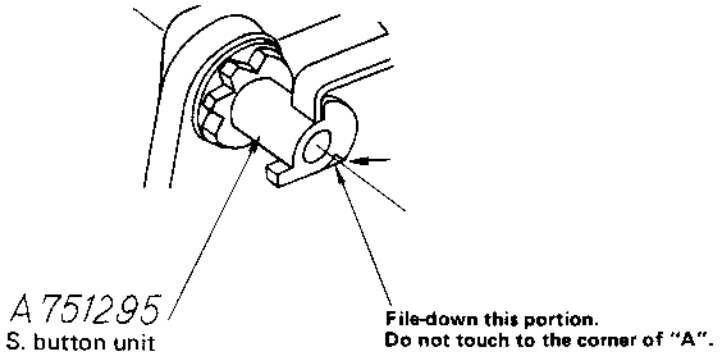

A 751295
S. button unit
File-down this portion.
Do not touch to the corner of "A".

Fig. 2

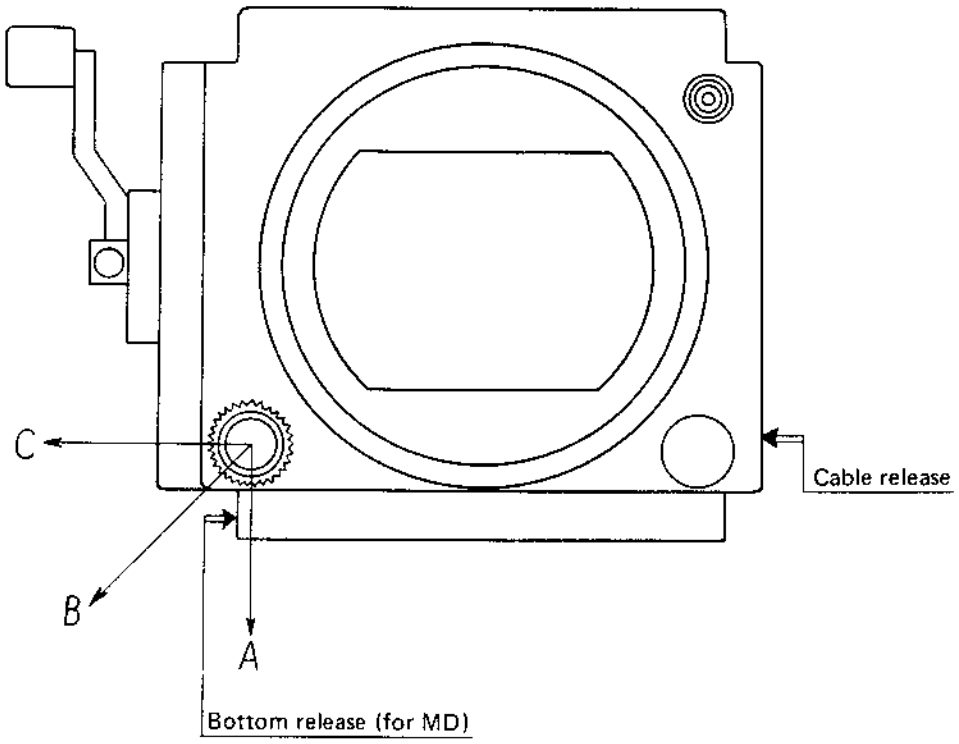

C
B
A
Cable release
Bottom release (for MD)

Fig. 3

30. Battery Checker Lamp won't Light-on or Keep Light-on

Proceed as follows;

1) Check whether the lamp itself is normal or not.
   On Fig. 1, apply regular tester with its minimum resistance measuring range (under 1 ohm), "A" to "–" side and "B" to "+" side respectively. On this condition, the lamp should light-on. If not, replace A284250.
2) If the lamp functioning properly, check electric conductivity between BC switch spring (A284281) and riveting portion ("C" on Fig. 1) of BC board (A755585) using regular tester.
   If current is not passing, loosen screw (B813255) and adjust the position of switch spring so that they are in good conductivity. If they are keep in contact, the lamp stay ON.
3) Place imitation battery into the battery chamber of the camera body, using voltage regulator, make sure the lamp lights-on at 5V and lights-off at 4.7V. If the lamp does not light-on at 5V, adjust VR1 in Fig. 1. If beyond control of VR1, replace BC board.
4) After replacement of BC board, re-check above procedures.
   If the lamp still does not function properly, check wiring referring to page 26.
5) If the lamp stays light-on, since most conceivable cause of problem would be short-circuit due to broken board or short-circuit between wires, check the procedure (2) to (4).

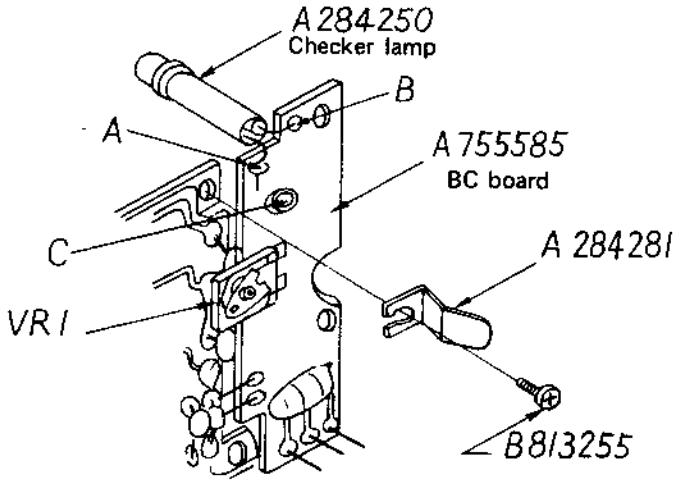
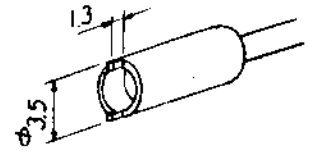
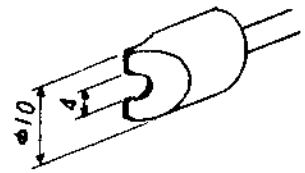
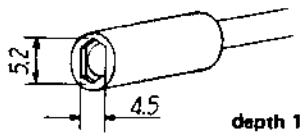
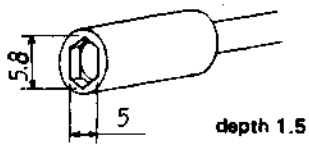
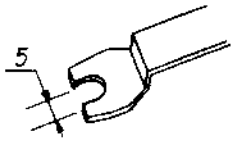
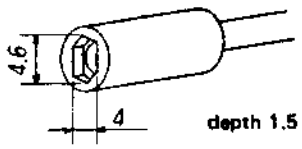
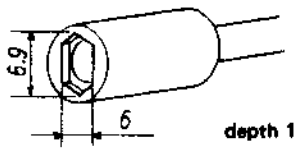
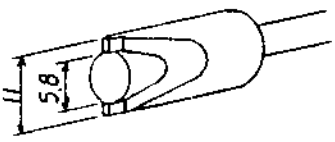
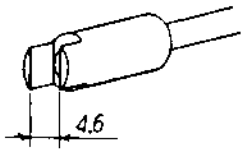
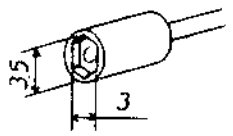
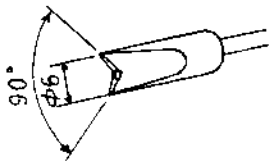
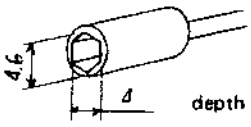
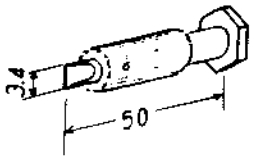
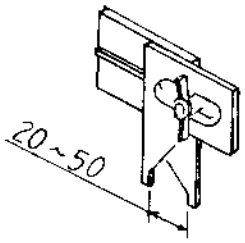
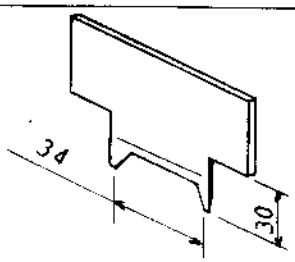
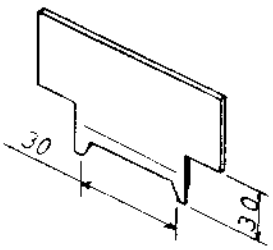
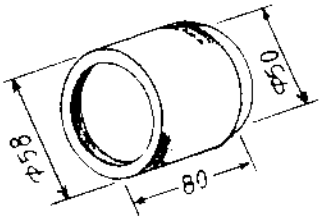
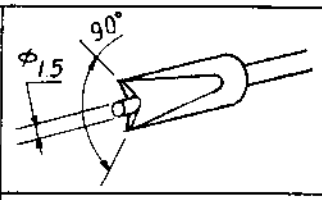
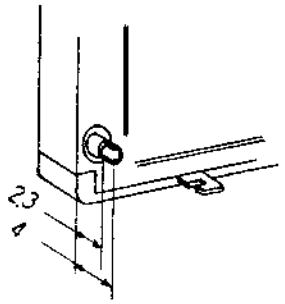
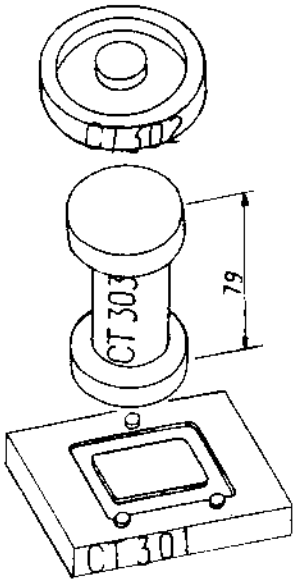
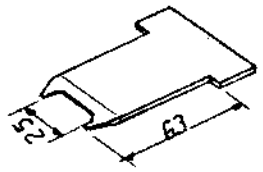
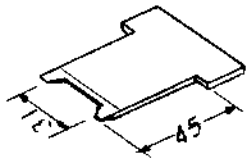
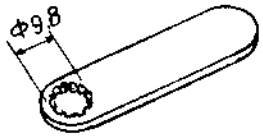
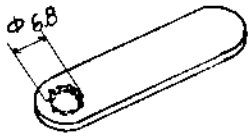
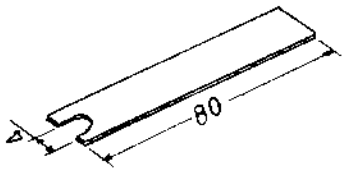
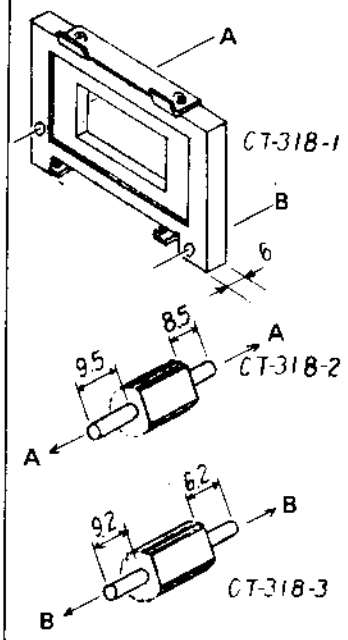


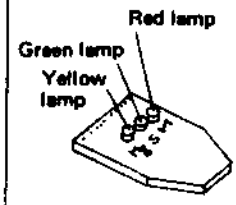
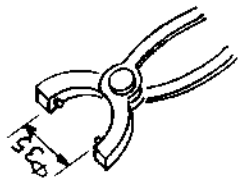
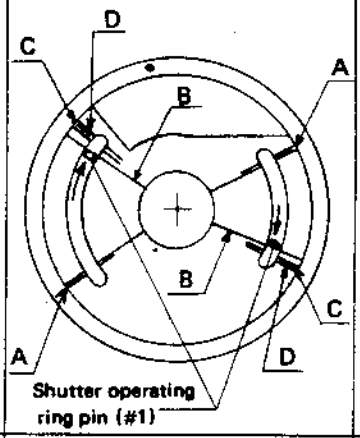
Fig. 1

1-255670-AJ Screw driver		1-255670 for Crank catch setting screw.
1-256593-AJ Screw driver		1-256593 for Cable release socket.
1-255790-AJ Socket driver		1-255790 for Winding stopper claw spring holder. 1-230700 for Crank axle B (Speed grip).
1-250160-AJ Socket driver		1-250160 for Dark slide relay lever axle.
1-255230-AJ Wrench		1-255230 for Cam holding nut.
1-250130-AJ Socket driver		1-253561 for Bayonet pin spring holder 1-253772 for AE changeover rod guide.
1-252391-AJ Socket driver		1-750050 for Flash synchro socket (old type).
1-252394-AJ Screw driver		for Flash synchro socket (new type).
1-261550-AJ Screw driver		1-261552 for Dividing plate axle.

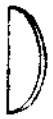
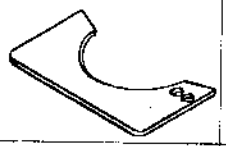
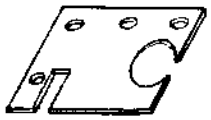
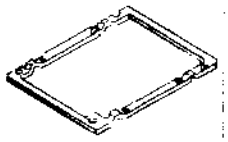
1-250211-AJ Socket driver		1-250211 for M switch lever axle.
1-256060-AJ Screw driver		1-256060 for Button ring nut.
1-253951-AJ Socket driver		1-253951 for Lens safety link guide.
1-251280-AJ Screw driver		1-251280 for Mirror arm setting screw.
1144-AJ Free size wrench		
1-210180-AJ-3 Wrench		for 75 mm Front lens ring nut.
1-210180-AJ-4 Wrench		for 75 mm Rear lens ring nut.
1-210482-AJ Rubber barrel		for Lens name ring.

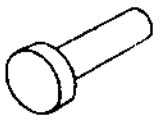
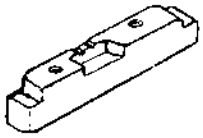
1-260961-AJ Screw driver		1-260961 for F release cylinder B.
1-261611-CT Stroke adjusting tool		1-261600 for F release shaft A.
CT-301 -302 -303 Camera length standard		1-252227 Lens mount (Use with surface plate and dial gauge) Set dial gauge "0" with total length of 3 tools, then put camera body on the CT-301, and put CT-302 on the lens mount (1-252227) of the body, CT-303 is taken out. See dial gauge meter and adjust the length of the camera body.

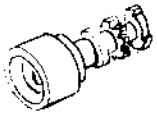
1148-AJ-1 Wrench		for 250 mm
1148-AJ-2 Wrench		for 250 mm
1-252280-AJ Wrench		1-252280 for Shutter button ring. 1-254010 for Lens button ring.
1-254080-AJ Wrench		1-254080 for Lens release button.
1-253571 Wrench		1-253571 for Lens button shaft
CT-318-1 -2 -3 Back relay action testing tool		(Set CT-318-1 to camera body, and insert CT-318-2 and CT-318-3 to hole A or B.) CT-318-2, 9.5 mm Winding is stop, also release button is depressed. 8.5 mm Winding is not stop, also release button is not depressed. CT-318-3, 9.2 mm Back release button is depressed, also release button is not depressed. 6.2 mm Back release button is not depressed, also release button is depressed.

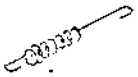
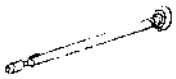
1-754500-PT M switch set adjusting tool		1-754500 for M switch set M switch set is adjusted following manner. (Set to camera body with battery.) When winding is charged, the red lamp is ON, and half depressing of release button, the red lamp is OFF, next the green lamp is ON, the yellow lamp is ON during the shutter is open.
1-210150-AJ-2 Wrench		1-210150 for shutter unit fixing ring.
CT-321 Winding stroke inspecting tool		(Set CT-321 to camera body without lens) 1) When mirror is upper position, the pin (#1) situates intervals A. 2) When winding is starting, the pin is reached line B simultaneously. 3) When winding is stop, the pin situates intervals C. 4) The pin is not over run line D under any conditions.

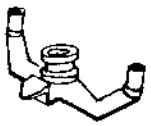
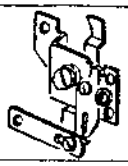
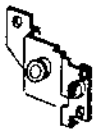
ZENZA BRONICA ETRS | Camera body

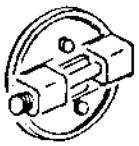
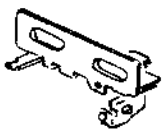
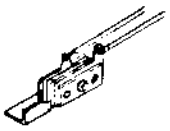
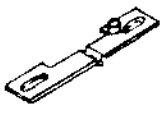
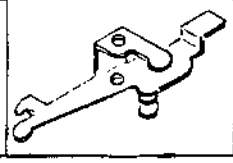
Parts No. 部品番号	Name 名称	Shape 形状	Pcs per Unit 個数	Page 頁	Ass'y No. 組立番号	Price 単価	Remarks 備考
1-284 820	Leatherette (S. dial cap) Sダイアル蓋革		2				Usable to ETR
010	Leatherette (right-front) 右カバー革(前)						
020	Leatherette (right-lower) 右カバー革(後下)						Usable to ETR
030	Leatherette (right-upper) 右カバー革(後上)						Usable to ETR
041	Leatherette (left cover) 左カバー革						
070	Frame gate 画面枠						
080	Frame gate (Adj. II) 画面枠(調整用II)						
090	Frame gate (Adj. I) 画面枠(調整用I)						
103	Name plate ETRS銘板						

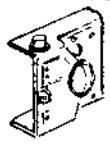
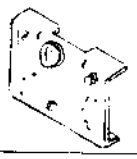
Parts No. 部品番号	Name 名称	Shape 形状	Pcs per Unit 個数	Page 頁	Ass'y No. 組立番号	Price 単価	Remarks 備考
1-284 120	Cable release pin ケーブルレリーズピン						Usable to ETR
240	Focusing screen guide 焦点板ガイド						
281	BC switch spring BCスイッチバネ						
292	Mirror shaft cover ミラー軸カバー						

Parts No. 部品番号	Name 名称	Shape 形状	Pcs per Unit 個数	Page 頁	Ass'y No. 組立番号	Price 単価	Remarks 備考
1-284 490	M. switch link spring Mスイッチリンクバネ						
500	M. switch lever spring Mスイッチレバーバネ						
512	Shutter button ring シャッターボタンリング				1-75 1295		
580	S. release link Sレリーズリンク				2095		
590	Click spring クリックバネ						
630	S. button lock claw Sボタンロックル						

Parts No. 部品番号	Name 名称	Shape 形状	Pcs.per Unit 個数	Page 頁	Ass'y No. 組立番号	Price 単価	Remarks 備考
1-284 640	Release lever collar レリーズレバー軸カラー						
650	Release return spring レリーズ戻シバネ						
660	S. latch spring S掛金バネ						
671	Lock claw spring ロックルバネ						
680	Crank axle クランク軸						
5-770 050	Steel ball スチールボール						

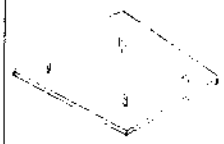
Parts No. 部品番号	Name 名称	Shape 形状	Pcs per Unit 個数	Page 頁	Ass'y No. 組立番号	Price 単価	Remarks 備考
1-75 0065	M. switch lever Mスイッチレバーカシメ						
0075	M. switch link Mスイッチリンクカシメ						
0085	AE switch lever AEスイッチレバーカシメ						
1295	Release button set シャッタボタンリングセット						
2095	S. latch set S掛金受板セット						
2105	S. latch base S掛金受板カシメ						
2115	S. latch S掛金カシメ						
3115	Winding unit 巻上地板ユニット						
3125	巻上地板カシメ						
3145	連結ギヤーアーム下カシメ						

Parts No. 部品番号	Name 名称	Shape 形状	Pcs per Unit 個数	Page 頁	Ass'y No. 組立番号	Price 単価	Remarks 備考
1-75 3235	Multi-relay lever マルチ中継レバーカシメ						
3315	Crank base casting set クランク座セット						
3545	F. release plate (lower) 下部除板下カシメ						
4145	Checker lamp set チェッカーランプセット						
4515	Display switch set 表示スイッチセット						
4610	Synch socket シンクロソケット						
5285	Focusing screen holder 焦点板押えカシメ						
5315	Release lever レリーズレバーカシメ						

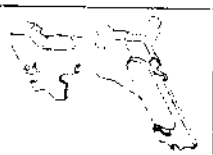
Parts No. 部品番号	Name 名称	Shape 形状	Pcs per Unit 個数	Page 頁	Ass'y No. 組立番号	Price 単価	Remarks 備考
1-75 5455	Right side cover set (black) 右カバーセット(黒)						5405(白) (chrome)
5555	Left side cover set (black) 左カバーセット(黒)						5505(白) (chrome)
5585	BC board BC基板						

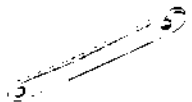
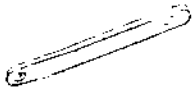
Parts No. 部品番号	Name 名称	Shape 形状	Pcs per Unit 個数	Page 頁	Ass'y No. 組立番号	Price (¥) 単価	Remarks 備考
1-250033	Set lever shaft セットレバー軸						
0054	F-release pin sleeve F連動ピンスリーブ						
0064	Finder lock bearing ファインダーロック軸受						
0092	Finder lock stud ファインダーロック軸台座						
0113	Bottom cover stud 底蓋ヒンジ台座		3				
0131	Release relay lever axle レリーズ中間レバー軸						

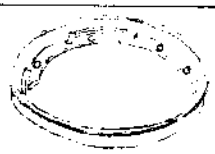
Parts No. 部品番号	Name 名称	Shape 形状	Posper Unit 個数	Page 頁	Ass'y No. 組立番号	Price (¥) 単価	Remarks 備考
1-250161	Dark slide relay lever axle 引蓋中継レバー軸						
0182	Release link spring holder 巻戻しリンクバネ押え						
0192	Connecting key spring holder 巻上連動キーバネ押え		2				
0204	Dark slide pin sleeve 引蓋連動ピンスリーブ						
0213	M switch lever axle M スイッチレバー軸						
0222	M switch lever spring holder M スイッチレバーバネ押え						
0231	M switch link spring holder M スイッチリンクバネ押え						
0251	Mirror arm axle (left) ミラーアーム軸(左)						
0271	Finder lock spring ファインダーロックバネ						
0280	Sleeve set screw スリーブ止めビス		2				

Parts No. 部品番号	Name 名称	Shape 形状	Pcs per Unit 個数	Page 頁	Ass'y No. 組立番号	Price (¥) 単価	Remarks 備考
1-251152	Mirror 反射ミラー						
1164	Rear light-tight frame 後面遮光壁						
1210	Light-tight plate axle 遮光板軸		2		1-751100		
1221	Light-tight plate arm 遮光板アーム						
1243	Roller axle 遮光板ローラー軸						
1270	M guide roller ミラーガイドローラ		2				
1280	M arm screw (left) ミラーアームセット(左)						
1290	M stopper ミラーストッパー						
1312	M adjusting collar ミラー調整カラー						
1321	M adjusting axle ミラー調整軸						

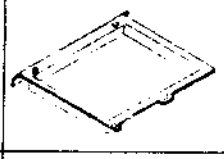
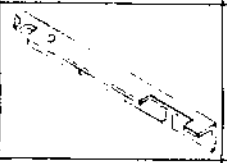
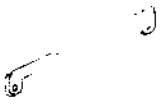
Parts No. 部品番号	Name 名称	Shape 形状	Pcs per Unit 個数	Page 頁	Ass'y No. 組立番号	Price (¥) 単価	Remarks 備考
1-251460	M arm screw (right) ミラーアーム止ネジ(右)		2				
1471	M arm adjusting cam ミラーアーム調整カム						
1501	Operating plate set roller 作動板セットコロ						
1511	Operating plate roller 作動板コロ		2		1-751200		
1561	Set lever screw セットレバー止ネジ						
1571	Operating plate stud 作動板支持						
1581	Bottom light-tight plate 底面遮光板						
1602	Operating ring spring (right) 作動リングバネ(右)						
1613	M driving lever spring ミラー駆動レバーバネ						

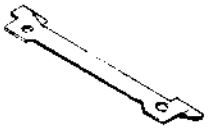
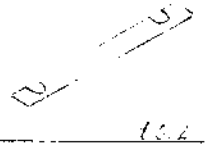
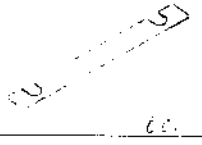
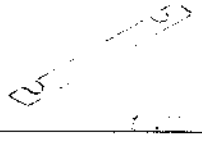
Parts No. 部品番号	Name 名称	Shape 形状	Pcs per Unit 個数	Page 頁	Ass'y No. 組立番号	Price (¥) 単価	Remarks 備考
1-251631	Release relay spring レリーズ中継バネ						
1641	Set screw 作動板取付ネジ				1-751200		
1682	Light baffle cover 遮光カバー						
1693	Light baffle cover screw 遮光カバー取付ネジ						
1700	R adjust O-ring ミラー調整Oリング						
1710	R stopper screw ミラーストッパー止ネジ		2				
1740	Adjust cam set screw 調整カム止ネジ						
1751	Mirror holder (right) ミラー押え板(右)						
1761	Mirror holder (left) ミラー押え板(左)						

Parts No. 部品番号	Name 名称	Shape 形状	Pcs per Unit 個数	Page 頁	Ass'y No. 組立番号	Price (¥) 単価	Remarks 備考
1-251800	Frame metal (left) 後面窓枠壁板(左)						
1810	Frame metal (right) 後面窓枠壁板(右)						
1840	Light baffle arm roller D 遮光板アームコロD	33.5					adj. 1-251231
1850	Light baffle arm roller E 遮光板アームコロE	33.5					adj. 1-251231

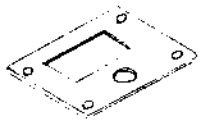
Parts No. 部品番号	Name 名称	Shape 形状	Pcs per Unit 個数	Page 頁	Ass'y No. 組立番号	Price (¥) 単価	Remarks 備考
1-252132	Pin set screw S作動ピン止ネジ				1-752010		
2132	Spring collar 作動バネカラー				"		
2226	Lens mount レンズマウント						
2241	Operating spring holder (right) 作動バネホルダー(右)						
2251	Operating spring holder (left) 作動バネホルダー(左)						
2270	S button stopper ring Sボタン止リング						
2281	S button ring B シャッターボタンリングB						

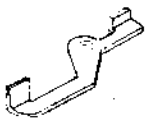
Parts No. 部品番号	Name 名称	Shape 形状	Pcs per Unit 個数	Page 頁	Ass'y No. 組立番号	Price 単価	Remarks 備考
1-252295	Lens release button レンズ着脱ボタン						
2307	Lens button ring レンズボタンリング						
2391	Release link set screw レリーズリンク止メネジ						
2452	Operating ring stopper 作動リングストッパー						

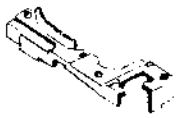
Parts No. 部品番号	Name 名称	Shape 形状	Pcs per Unit 個数	Page 頁	Ass'y No. 組立番号	Price (¥) 単価	Remarks 備考
1-252515	Light-baffle frame 画面遮光板						
2603	Top frame light baffle 上枠遮光板		2				
2612	Focusing screen guide stud 焦点板ガイド枠		2				
2642	Screen holder guide 焦点板押えガイド		2				
2652	Back coupling spring ﾊﾞｯｸ結合ﾊﾞﾈ						
2662	AE connector set screw AEｺﾈｸﾀｰ止ﾈｼﾞ						
2671	Back coupling spring retainer ﾊﾞｯｸ結合ﾊﾞﾈBaｲﾝﾀ						

Parts No. 部品番号	Name 名称	Shape 形状	Pcs per Unit 個数	Page 頁	Ass'y No. 組立番号	Price (¥) 単価	Remarks 備考
1-252711	Finder mounting claw ファインダー結合爪		2		1-755200		
2722	Finder mount spring (left) ファインダー結合バネ(左)				"		
2730	Finder mounting spring (right) ファインダー結合バネ(右)				"		
2800	**Adjusted liner** ヒット調整ライナー						
2810	"						
2830	"						
2850	**Socket ring** ソケットリング						

Parts No. 部品番号	Name 名称	Shape 形状	Pcs.per Unit 個数	Page 頁	Ass'y No. 組立番号	Price (¥) 単価	Remarks 備考
1-253061	Battery chamber button フタ(ツマミ)						
3174	Battery chamber cover 電池蓋						
3141	Back coupling claw バック結合爪		2				
3151	Coupling claw guide バック結合爪ガイド		4				
3161	Back coupling link バック連動レバー						
3181	Dark slide connecting pin 引蓋連動ピン						
3212	Safety lever holder 引蓋中継レバー押え						
3221	Dark slide safety latch 引蓋安全掛金						
3231	Safety latch axle 引蓋安全掛金軸						

Parts No. 部品番号	Name 名称	Shape 形状	Pcs per Unit 個数	Page 頁	Ass'y No. 組立番号	Price (¥) 単価	Remarks 備考
1-2[illegible]3240	Speed-grip shutter release rod 速レリーズ棒						
3252	MD connector cover MDコネクター蓋						
3270	Tripod socket (¼" screw) 三脚ネジ				1-755330		
3281	Tripod mounting shoe 三脚シュー						
3293	Battery chamber bottom plate 電池ボックス底板						
3332	Back coupling link guide バック着脱リンクガイド						
3340	Link collar バック着脱リンクカラー						
3350	Battery chamber button spring 電池蓋バネ						
3362	Dark slide safety lever spring 引蓋安全レバーバネ						
3371	release relay lever spring レリーズ中継レバーバネ						

Parts No. 部品番号	Name 名称	Shape 形状	Pcs per Unit 個数	Page 頁	Ass'y No. 組立番号	Price (¥) 単価	Remarks 備考
1-253390	Back coupling claw spring バック結合爪バネ		2				
3401	Back coupling link spring バック着脱リンクバネ						
3411	Operating ring spring 作動リングバネ				1-752010		
3421	Lens button safety lever レンズ外し安全レバー						
3431	Safety lever axle レンズ外し安全レバー軸						

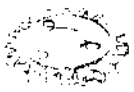
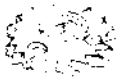
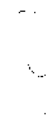
Parts No. 部品番号	Name 名称	Shape 形状	Pcs per Unit 個数	Page 頁	Ass'y No. 組立番号	Price 単価	Remarks 備考
1-[illegible]63	Safety lock plate 安全ロック受板						
3632	Safety lock spring レンズ安全ロックバネ						
3705	Shutter speed dial シャッター速度環						
3713	S. dial lens S ダイヤル窓						
3725	AE switch cover AE スイッチカバー						
3752	M. switch link guide M スイッチ リンクガイド		2				
3773	AE changeover rod guide AE 切換棒ガイド						
3783	Switch cover stud A スイッチカバー柱 A		2				
3791	Switch cover stud B スイッチカバー柱 B						
3810	Switch lever axle AE スイッチレバー軸						

Parts No. 部品番号	Name 名称	Shape 形状	Pcs per Unit 個数	Page 頁	Ass'y No. 組立番号	Price (¥) 単価	Remarks 備考
1-253901	Wire holder 配線押え		2				
3920	AE changeover rod spring AE切換棒バネ						
3951	Lens safety link guide レンズ安全リンクガイド						
3960	L. button safety link レンズボタン安全リンク						
4012	lens button ring レンズボタンリング						
4043	lens button sleeve 着脱ボタン押え						
4062	Button lock spring レンズボタンロックバネ						
4080	Lens release button レンズ解除ボタン						

Parts No. 部品番号	Name 名称	Shape 形状	Pcs per Unit 個数	Page 頁	Ass'y No. 組立番号	Price (¥) 単価	Remarks 備考
1-254471	F. release plate collar (upper) 片解除板(上)カラー		2		1-753500		
4500	F. lever upper spring 片解除レバー上バネ				"		
4541	F. lever lower spring 片解除レバー下バネ				"		
4711	Stopper screw ストッパーネジ				"		
4790	Upper plate spring 片解除板上バネ				"		
4830	Release plate roller 解除板コロ		4		"		
4841	F. release plate collar (lower) 解除板カラー(下)		2		"		
4852	F. release plate collar (upper) 解除板カラー(上)		2		"		
4871	F. release lever axle (upper) 片解除レバー軸(上)				"		
4881	F. release lever axle (lower) 片解除レバー軸(下)				"		

Parts No. 部品番号	Name 名称	Shape 形状	Pcs per Unit 個数	Page 頁	Ass'y No. 組立番号	Price (¥) 単価	Remarks 備考
1-254892	Winding safety lever spring 巻上安全レバーバネ				1-753500		
4912	F. release pin F解除ピン						
4930	Winding safety lever (upper) 巻上安全レバー(上)				1-753500		
4941	Safety lever collar 巻上安全レバーカラー				"		
4953	Safety lever upper spring 巻上安全レバー上バネ				"		

Parts No. 部品番号	Name 名称	Shape 形状	Pcs per Unit 個数	Page 頁	Ass'y No. 組立番号	Price 単価(¥)	Remarks 備考
1-255051	Right cover setting stud 右カバー取付ビス						
5162	Winding main shaft 巻上主軸				1-753100		
5170	Winding cam washer 巻上カム座金				"		
5221	Cam spring holder カムバネ押え				1-753100 1-753100		
5231	Cam holding nut カム押えナット				1-753100		
5292	Multi-relay lever screw マルチ中継レバー止ネジ				"		
5350	Release safety lever (upper) リリース安全ツメ(上)				1-753100		
5471	Multi lever axle マルチレバー軸				"		
5402	Setting screw マルチセットレバー止ネジ				"	B	

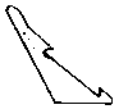
Parts No. 部品番号	Name 名称	Shape 形状	Pcs per Unit 個数	Page 頁	Ass'y No. 組立番号	Price (¥) 単価	Remarks 備考
1-255433	Transmission gear 中間歯車				1-753100		
5442	Connecting gear 連結歯車				"		
5451	Gear arm collar ギヤーアームカラー				"		
5462	Connecting gear arm (upper) 連結ギヤーアーム(上)				"		
5471	Gear arm screw ギヤーアーム止ネジ				"		
5482	Release safety cam レリーズ安全カム				"		
5492	Winding main gear 巻上主歯車				"		
5500	Winding ratchet 巻上ラチェット				"		
5510	Reverse stopping claw 逆転止爪				"		
5562	Main shaft cap 主軸押えリング				"		
5572	Main shaft set screw 主軸止ネジ				"		

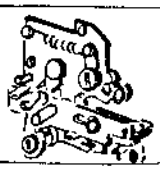
Parts No. 部品番号	Name 名称	Shape 形状	Pcs per Unit 個数	Page 頁	Ass'y No. 組立番号	Price (¥) 単価	Remarks 備考
1-255(1)	Set screw liner セットスクリュライナー				1-753(1)0		
5750	Connecting gear screw 連結ギヤー止ネジ				"		
5790	Winding stopper claw spring holder 巻止爪バネ押え				1-754(0)0		
5822	Multi lever set screw マルチレバーセットネジ		2		"		
5831	Gear friction spring ギヤーフリクションバネ				"		
5843	Winding stopper lever spring 巻止レバーバネ				"		
5852	Gear arm spring 連結ギヤーアームバネ				"		
5861	Winding stopper claw spring 巻止爪バネ				"		
5872	Auxiliary plate spring 巻止補助板バネ				1-755(1)0 1-755(1)0		
5881	**Wind stopper claw spring** 巻止爪バネ		2				

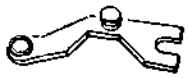
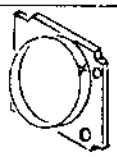
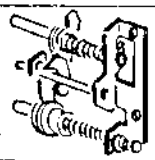
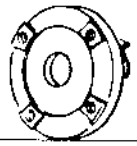
Parts No. 部品番号	Name 名称	Shape 形状	Pcsper Unit 個数	Page 頁	Ass'y No. 組立番号	Price (¥) 単価	Remarks 備考
1-255890	Reverse stop claw spring 逆転止爪バネ				1-753100		
5903	Multi link spring マルチリンクバネ				"		
5912	Safety lever (upper) spring 安全レバー(上)バネ				"		
5922	Multi-operating lever spring マルチ作動レバーバネ				"		
5930	Main shaft thrust washer A 主軸スラストワッシャー A				"		
5940	Main shaft thrust washer B 主軸スラストワッシャー B				"		
5950	Spring washer 主軸止バネ座金				"		
5960 5970	Main shaft washer A Main shaft washer B 主軸押え座金 A B				"		
5990	Connecting gear stopper 連結ギヤーストッパー				"		

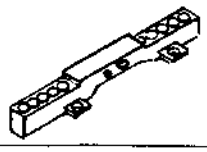
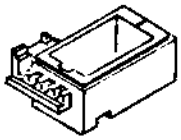
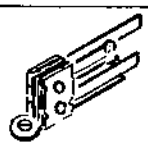
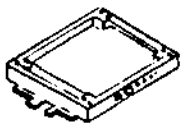
ZENZA BRONICA [ERS] | Camera body

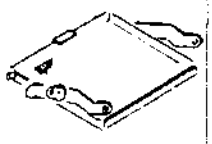
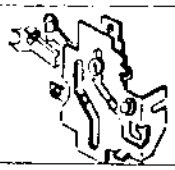
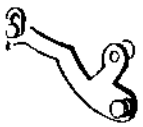
Parts No. 部品番号	Name 名称	Shape 形状	Pcs per Unit 個数	Page 頁	Ass'y No. 組立番号	Price (¥) 単価	Remarks 備考
1-25-091	Multi exposure lever マルチレバー						
6111	Multi lever ring マルチレバーリング						
6202	Rear light tight plate 後部遮光板						
6661 9190	[illegible]				[illegible]		
[illegible]	[illegible]				[illegible]		

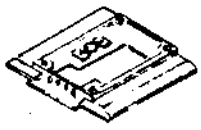
Parts No. 部品番号	Name 名称	Shape 形状	Pcs per Unit 個数	Page 頁	Ass'y No. 組立番号	Price 単価	Remarks 備考
1-257040	Crank base cover クランク座化粧板		2				
7102	Light baffle paper (right-front) 遮光紙(右前)						
7114	Light baffle paper (right-rear) 遮光紙(右後)						
7122	Light baffle paper (right-center) 遮光紙(右中)				1-751200		
7141	Light baffle paper (left-front) 遮光紙(左前)						
7154	Light baffle paper (left-rear) 遮光紙(左後)						
7161	Bottom light baffle (front) 底面遮光紙(前)						
7171	Bottom light baffle (rear) 底面遮光紙(後)						
7231	Rear light baffle 後面遮光紙						

Parts No. 部品番号	Name 名称	Shape 形状	Pcs per Unit 個数	Page 頁	Ass'y No. 組立番号	Price 単価	Remarks 備考
1-753240	Multi operating lever マルチ作動レバーカシメ						
3250	Multi-set lever マルチセットレバーカシメ						
3340	Crank ring set クランクリングセット						
3500	F release unit F解除ユニット						
3520	F release lever (upper) F解除レバー(上)カシメ						
3530	F release lever (lower) F解除レバー(下)カシメ						
3590	F release plate (upper) F解除板(上)カシメ						
3600	Winding safety lever F巻上安全レバー(下)カシメ						

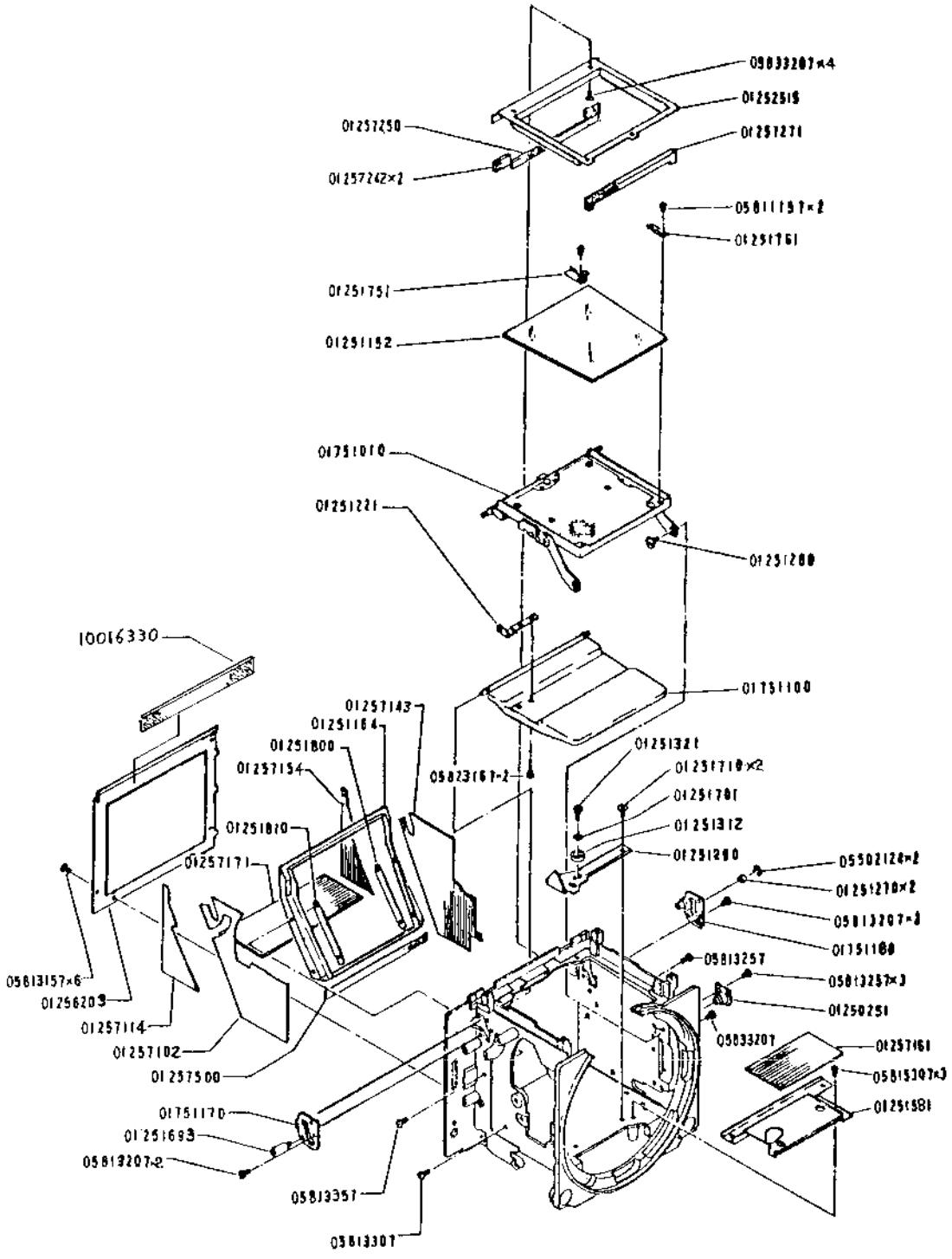
Parts No. 部品番号	Name 名称	Shape 形状	Pcs per Unit 個数	Page 頁	Ass'y No. 組立番号	Price 単価	Remarks 備考
1-751260	Set lever セットレバーカシメ						
2010	Shutter operating ring unit シャッター作動リングユニット						
2060 2510	Front cover (W) " (B) 前カバー(白)(黒)						
2120	Lens release unit レンズ着脱ユニット						
2130	Lens safety lock レンズ安全ロックカシメ						
3130	Reverse stop claw mount set 逆転止爪座板セット						
3170	Winding wheel set 巻上輪セット						
3190	Setting cam unit セットカムユニット						
3220	Winding stopper lever 巻止レバーカシメ						

Parts No. 部品番号	Name 名称	Shape 形状	Pcs/per Unit 個数	Page 頁	Ass'y No. 組立番号	Price 単価	Remarks 備考
1-754111	Shutter circuit シャッター回路ユニット						
4120	AE changeover rod AE切換棒						
4201	Lens connector set レンズコネクターセット						
4305	AE connector set AEコネクターセット						
4401	Battery chamber 電池ボックスセット						
4500	M switch set Mスイッチセット						
5200	Top frame 上枠						

Parts No. 部品番号	Name 名称	Shape 形状	Pcsper Unit 個数	Page 頁	Ass'y No. 組立番号	Price 単価	Remarks 備考
1-750030	Finder lock pin ファインダー錠除ピン						
0040	Dark slide safety lever 引蓋安全中継レバー						
0090	Release relay lever レリーズ中継レバー						
1010	Mirror frame set ミラー枠						
1100	Light tight frame set 遮光板セット						
1170	M guide plate(right) M作動溝板(右)						
1180	M guide plate(left) M作動溝板(左)						
1200	M driving unit ミラー駆動ユニット						
1230	M driving lever ミラー駆動レバー						
1250	M operating plate set ミラー作動板セット						

Parts No. 部品番号	Name 名称	Shape 形状	Pcs per Unit 個数	Page 頁	Ass'y No. 組立番号	Price 単価	Remarks 備考
1-755530	S dial cap Sダイアル蓋						
5570	S dial knob Sダイアルノブ						
1-751280	R. light-tight plate 右遮光板						
2070	Front cover connecting plate (right) 前カバー取付板(右)						
2080	Front cover connecting plate (left) 前カバー取付板(左)						
2169	Lens button lock レンズボタンロック						
5330	Bottom cover set 底蓋セット						

ETRS CAMERA BODY
(PLASTIC TYPE) **1**



MODEL	CODE	FIG.
ETR S Camera body	0201	1/6
BRONICA CO., LTD.		

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ZENZA
BRONICA

Your Order No.
Date of Your Order

ETRS CAMERA BODY (PLASTIC TYPE) **1** Name of Customer:

Parts No.	Description		Price	Order QTY	Stock	Delivery
01751010	Mirror frame set	ミラー枠セット				
01751100	Light tight plate set	遮光板セット				
01751170	Mirror operating guide (right)	ミラー作動ガイド(右)				
01751180	Mirror operating guide (left)	ミラー作動ガイド(左)				
01250251	Mirror arm axle (left)	ミラーアーム軸(左)				
01251152	Mirror	反射ミラー				
01251164	Rear light tight plate	後遮光板				
01251221	Light tight plate arm	遮光板アーム				
01251270	Mirror guide roller	ミラーガイドローラー				
01251280	Mirror arm stopper screw (left)	ミラーアームストッパーネジ(左)				
01251290	Mirror stopper	ミラーストッパー				
01251312	Mirror adjusting collar	ミラー調節カラー				
01251321	Mirror adjusting shaft	ミラー調節軸				
01251581	Bottom light tight plate	底遮光板				
01251693	Light tight cover set screw	遮光カバーセットネジ				
01251701	Mirror adjusting O-ring	ミラー調節Oリング				
01251711	Mirror stopper set screw	ミラーストッパーセットネジ				
01251751	Mirror holder (right)	ミラー押え(右)				
01251761	Mirror holder (left)	ミラー押え(左)				
01251800	Frame metal (right)	フレームメタル(右)				
01251810	Frame metal (left)	フレームメタル(左)				
01252515	Light baffle frame	遮光枠				
01256203	Rear light tight plate	後遮光板				
01257102	Light baffle paffle paper (right front)	遮光紙(右前)				
01257114	Light baffle paper (right rear)	遮光紙(右後)				
01257143	Light baffle paper (left front)	遮光紙(左前)				
01257154	Light baffle paper (left rear)	遮光紙(左後)				
01257161	Bottom light baffle (front)	底遮光板(前)				
01257171	Bottom light baffle (rear)	底遮光板(後)				
01257250	Sponge (rear B)	モルトプレン(後B)				
01257271	Sponge (front)	モルトプレン(前)				
01257500	Light baffle (bottom right)	遮光壁(底右)				
01257242	Sponge (rear A)	モルトプレン(後A)				
10016330	Sponge	モルトプレン				

Order Received on _____ by _____

工場受付年月日 _____ 年 __ 月 __ 日

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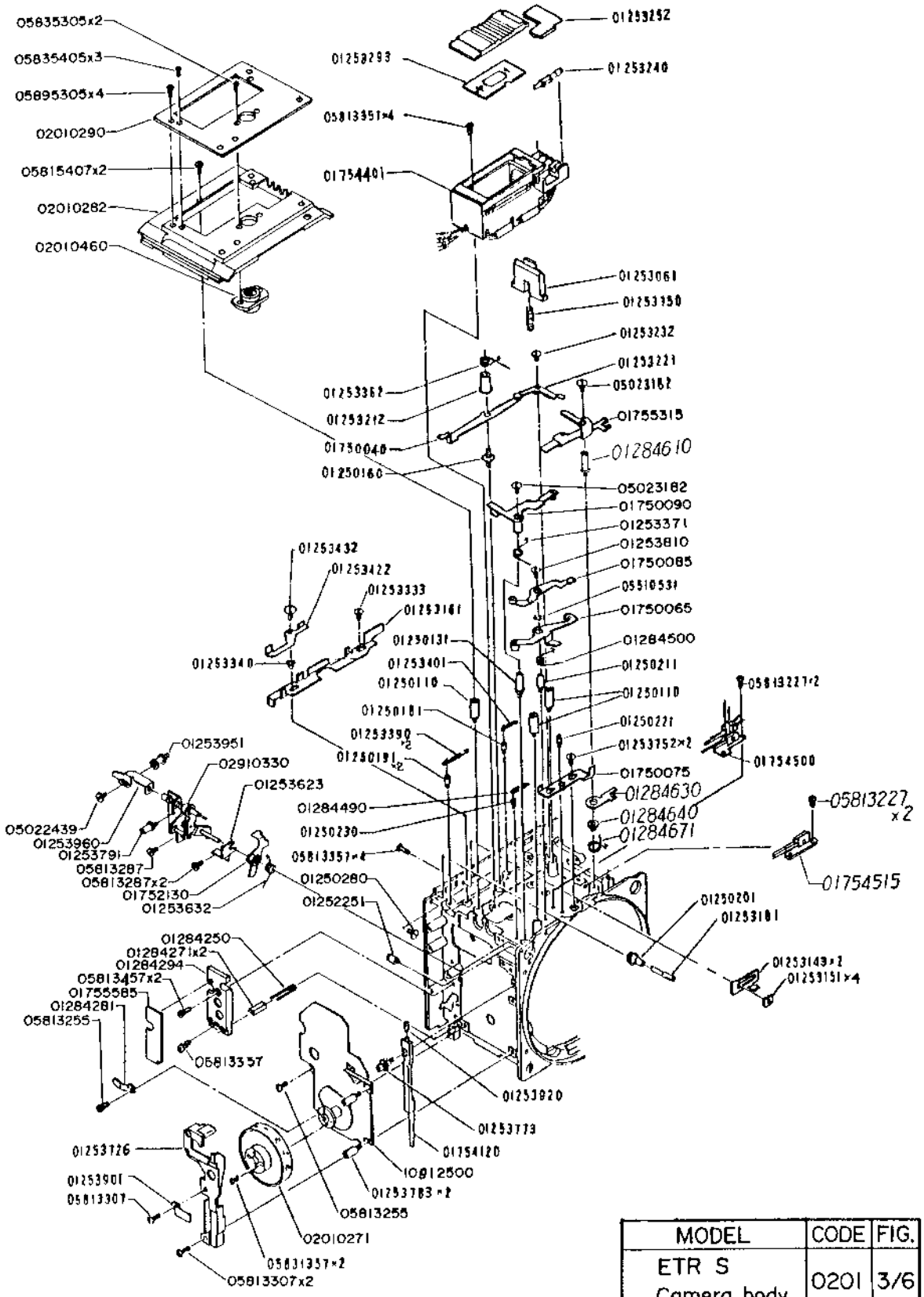
出荷記録

ETRS CAMERA BODY (PLASTIC TYPE) **3** –A



MODEL	CODE	FIG.
ETR S Camera body	0201	3/6
BRONICA CO., LTD.		

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ZENZA
BRONICA

Your Order No.
Date of Your Order

ETRS CAMERA BODY (PLASTIC TYPE) **3** – A

Name of Customer:

Parts No.	Description		Price	Order QTY	Stock	Delivery
01750040	Dark slide safety lever	引蓋安全レバー				
01750065	M. switch lever	M.スイッチレバー				
01750075	M. swich link	M.スイッチリンク				
01750085	AE switch lever	AEスイッチレバー				
01750090	Release relay lever	レリーズ中継レバー				
01752130	Lens safety lock	レンズ安全ロック				
01754120	AE change-over rod	AE切換桿				
01754401	Battery chamber set	電池室セット				
01754501	M. switch set	M.スイッチセット				
01754515	Display switch set	表示スイッチセット				
01755315	Release lever	レリーズレバー				
01755585	BC circuit board	BC回路基板				
02910330	Lens release unit	レンズ解除ユニット				
02010271	Shutter speed ring	シャッター速度リング				
0210282	Bottom cover	底カバー				
02010290	Tripod shoe	三脚シュー				
02010460	Tripod screw	三脚ネジ				
01250131	Release relay lever shaft	レリーズ中継レバー軸				
01250161	Dark slide relay lever shaft	引蓋中継レバー軸				
01250182	Release link spring holder	レリーズリンクバネ押え				
01250192	Connecting key spring holder button	結合鍵バネ押え				
01250204	Dark slide pin sleeve	引蓋ピンスリーブ				
01250211	M. switch lever shaft	M.スイッチレバー軸				
01250222	M. switch lever spring holder	M.スイッチレバーバネ押え				
01250231	M. switch link spring holder	M.スイッチリンクバネ押え				
01250280	Sleeve stopper screw	スリーブストッパーネジ				
01252251	Operating spring holder (left)	作動バネ押え(左)				
01253061	Battery chamber button	電池室ボタン				
01253143	Film back coupling claw	フィルムバック結合爪				
01253151	Film back coupling claw guide	フィルムバック結合爪ガイド				
01253161	Film back coupling link	フィルムバック着脱リンク				
01253181	Dark slide connecting pin	引蓋結合ピン				
01253212	Dark slide relay lever holder	引蓋中継レバー押え				
01253221	Safety lever holder	安全レバー押え				
01253232	Dark slide safety latch shaft	引蓋安全掛金軸				
01253240	Bottom release shaft	底解除軸				
01253252	MD connector cover	MDコネクターカバー				
01253293	Batery chamber bottom plate	電池室底板				
01253333	Film back coupling link guide	フィルムバック着脱リンクガイド				
01253340	Film back couplig link collar	フィルムバック着脱リンクカラー				
01253350	Battery chamber cover spring	電池室カバーバネ				
01253362	Dark slide safety lever spring	引蓋安全レバーバネ				
01253371	Release relay lever spring	レリーズ中継レバーバネ				
01253390	Film back coupling claw spring	フィルムバック着脱爪バネ				
01253401	Film back coupling link spring	フィルムバック着脱リンクバネ				
01253422	Lens button safety lever	レンズボタン安全レバー				
01253432	Lens button safety lever shaft	レンズボタン安全レバー軸				
01253623	Safety lock plate	セーフティーロック板				
01253632	Safety lock spring	セーフティーロックバネ				
01253726	AE switch cover	AEスイッチカバー				

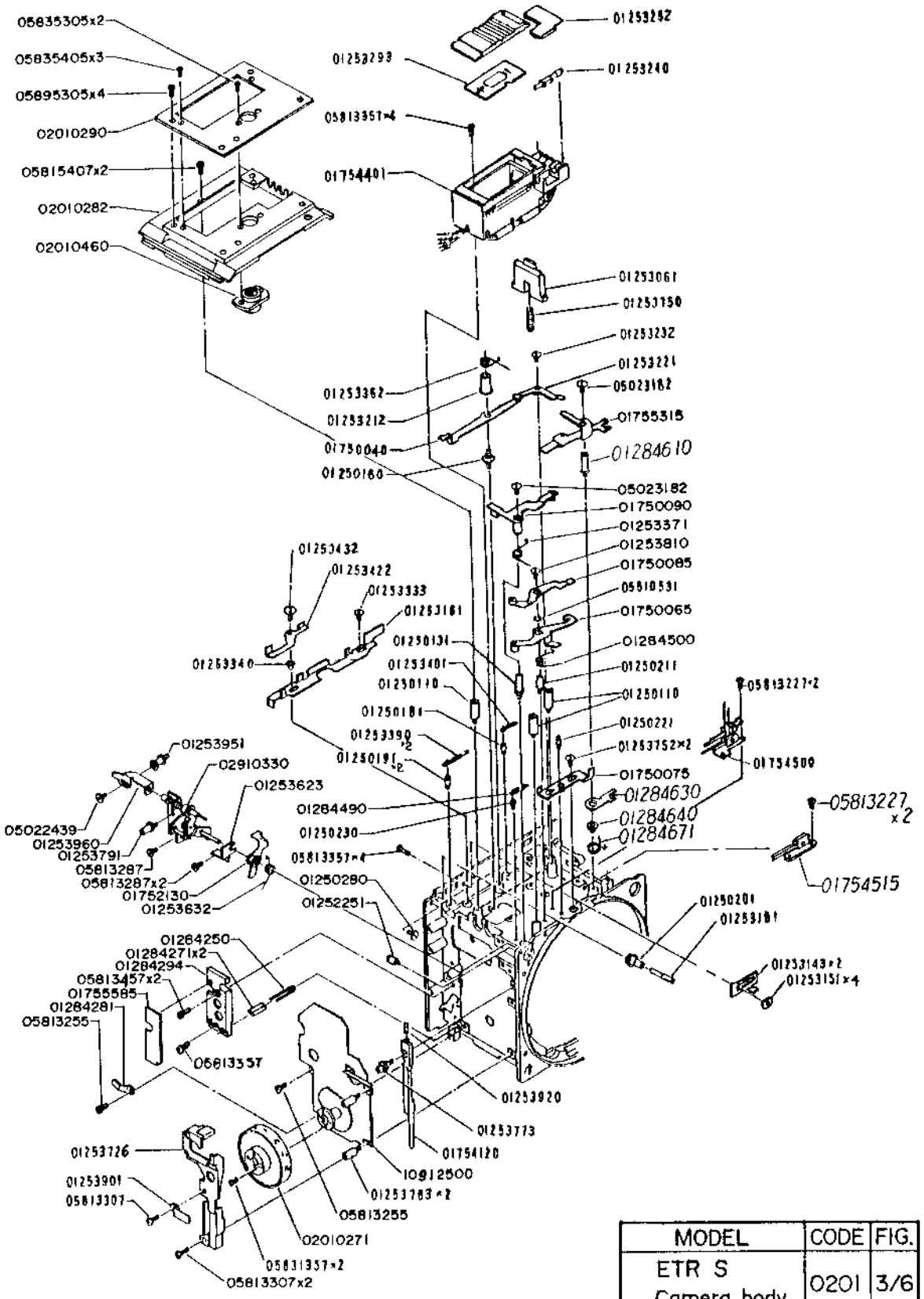
Order Received on _____ by _____

工場受付年月日 _____ 年 ___ 月 ___ 日

受付 _____ 部 _____ _____ 課 担当者 _____ _____

出荷記録

ETRS CAMERA BODY
(PLASTIC TYPE) **3** – B



MODEL	CODE	FIG.
ETR S Camera body	0201	3/6
BRONICA CO., LTD.		

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Your Order No.
Date of Your Order

ETRS CAMERA BODY (PLASTIC TYPE) **3** Name of Customer:
—B

Parts No.	Description		Price	Order QTY	Stock	Delivery
01253752	M. switch link guide	M.スイッチリンクガイド				
01253773	AE change-over rod guide	AE切換桿ガイド				
01253783	Switch cover stud A	スイッチカバービョウA				
01253791	Switch cover stud B	スイッチカバービョウB				
01253810	AE switch lever axle	AEスイッチレバー軸				
01253901	Wire holder	配線押え				
01253920	AE change-over rod spring	AE切換桿バネ				
01253951	Lens safety link guide	レンズ安全リンクガイド				
01253960	Lens button safety link	レンズボタン安全リンク				
01284250	Checker lamp	チェッカーランプ				
01284271	Tube B	チューブB				
01284281	BC switch spring	BCスイッチバネ				
01284294	Mirror shaft cover	ミラー軸カバー				
01284490	M. switch link spring	M.スイッチリンクバネ				
01284500	M. switch lever spring	M.スイッチレバーバネ				
01284610	Release lever shaft	レリーズレバー軸				
01284630	S. button lock claw	S.ボタンロック爪				
01284640	Release lever collar	レリーズレバーカラー				
01284671	Lock claw spring	ロック爪バネ				
10912500	Shutter circuit	シャッター回路基板				

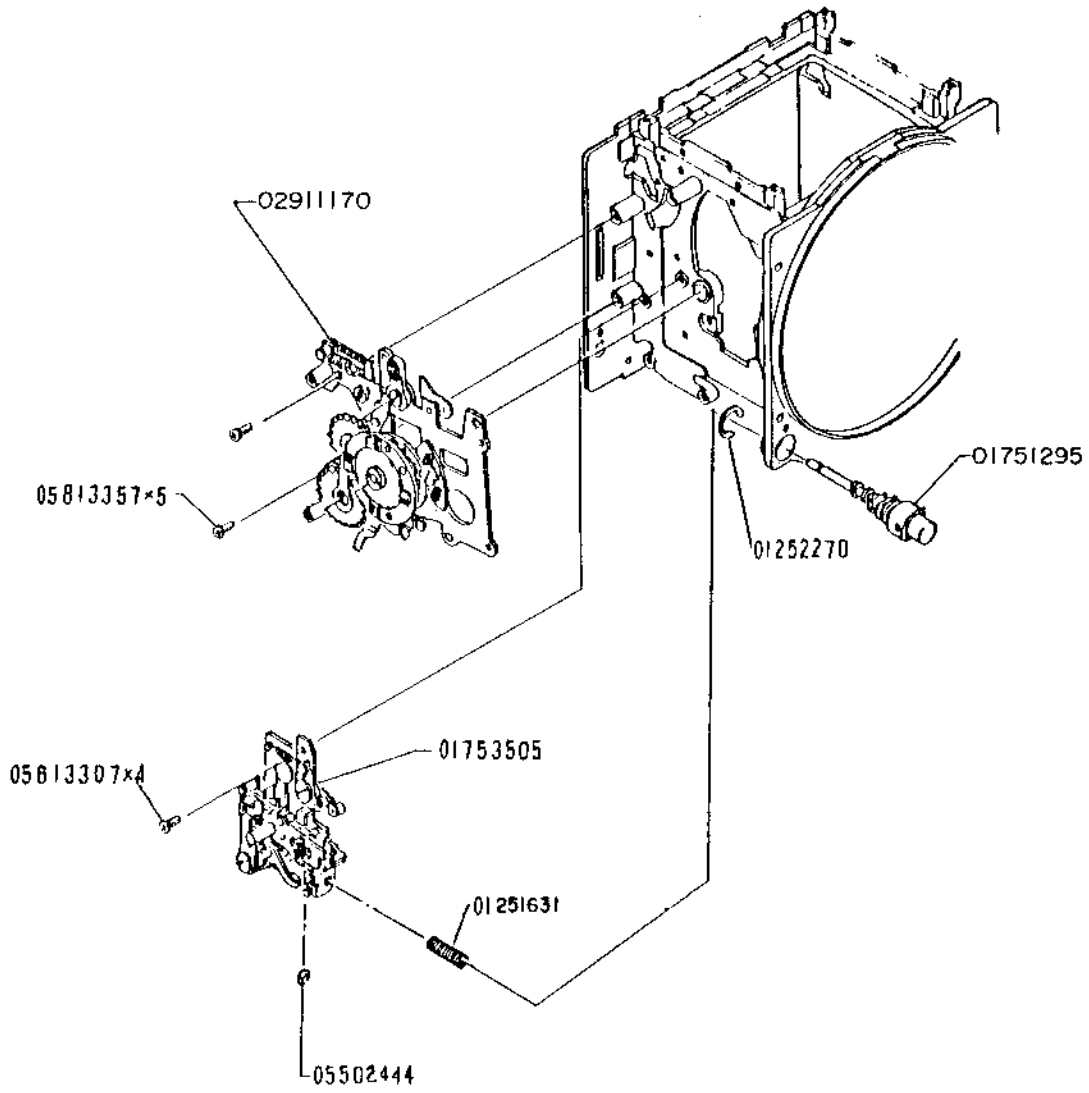
Order Received on _____ by _____

工場受付年月日 _____ 年 ___ 月 ___ 日

受付 _____ 部 _____ 課 担当者 _____

出 荷 記 録

ETRS CAMERA BODY
(PLASTIC TYPE) 4



MODEL	CODE	FIG.
ETR S Camera body	0201	4/6
BRONICA CO., LTD.		

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ZENZA
BRONICA

Your Order No.
Date of Your Order

ETRS CAMERA BODY (PLASTIC TYPE) **4** Name of Customer:

Parts No.	Description		Price	Order QTY	Stock	Delivery
01751295	S. button set	S.ボタンセット				
01753505	F. release unit	F.解除ユニット				
02911170	Winding unit	巻上ユニット				
01251631	Release relay spring	レリーズ中継バネ				
01252270	S. button stopper ring	S.ボタンストッパーリング				

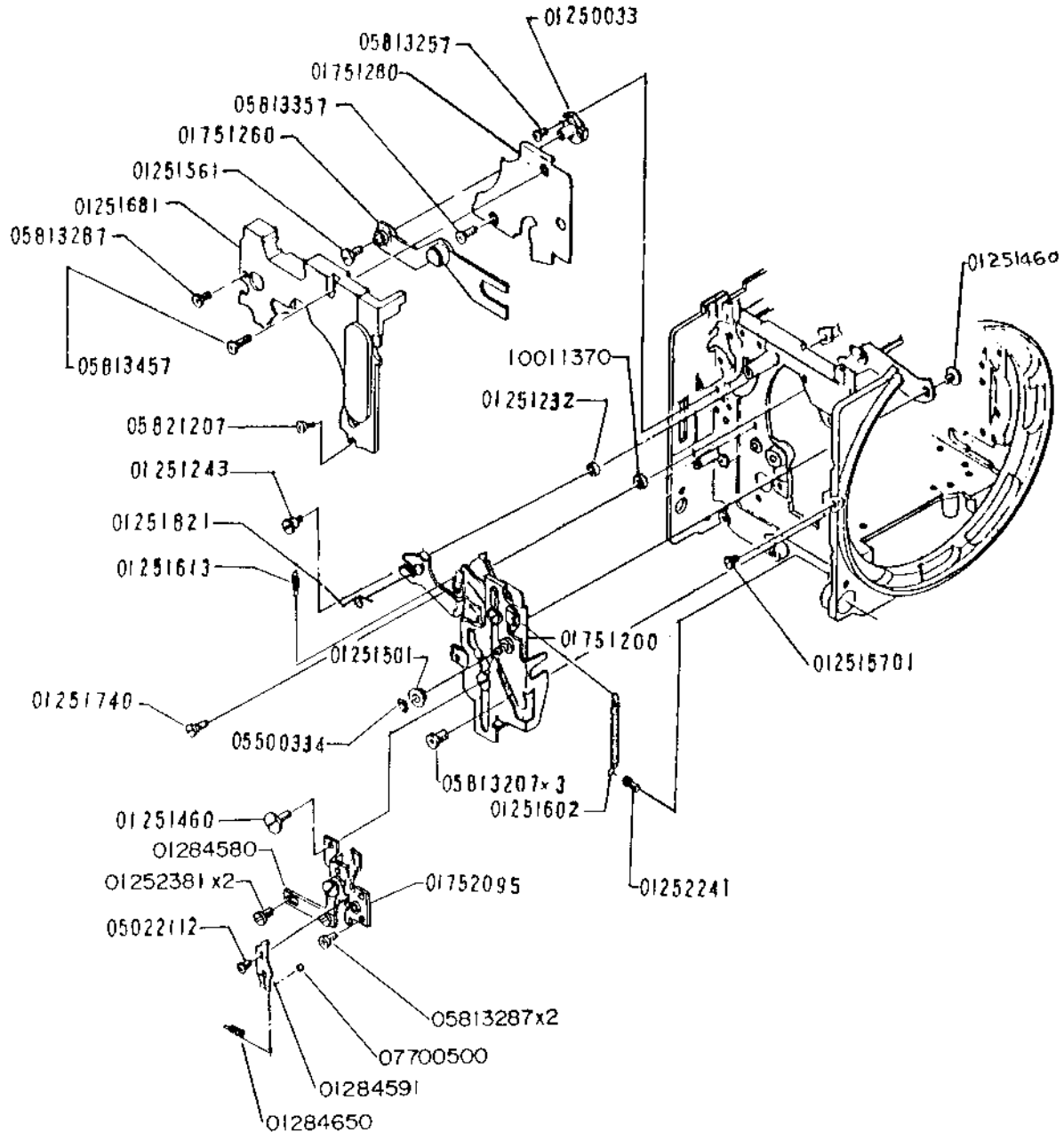
Order Received on _____ by _____

工場受付年月日 _____ 年 ___ 月 ___ 日

受付 _____ 部 _____ 課 担当者 _____

出 荷 記 録

ETRS CAMERA BODY
(PLASTIC TYPE) **5**



MODEL	CODE	FIG.
ETR S Camera body	0201	5/6
BRONICA CO., LTD.		

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ETRS CAMERA BODY (PLASTIC TYPE) **5**

Name of Customer:

Your Order No.

Date of Your Order

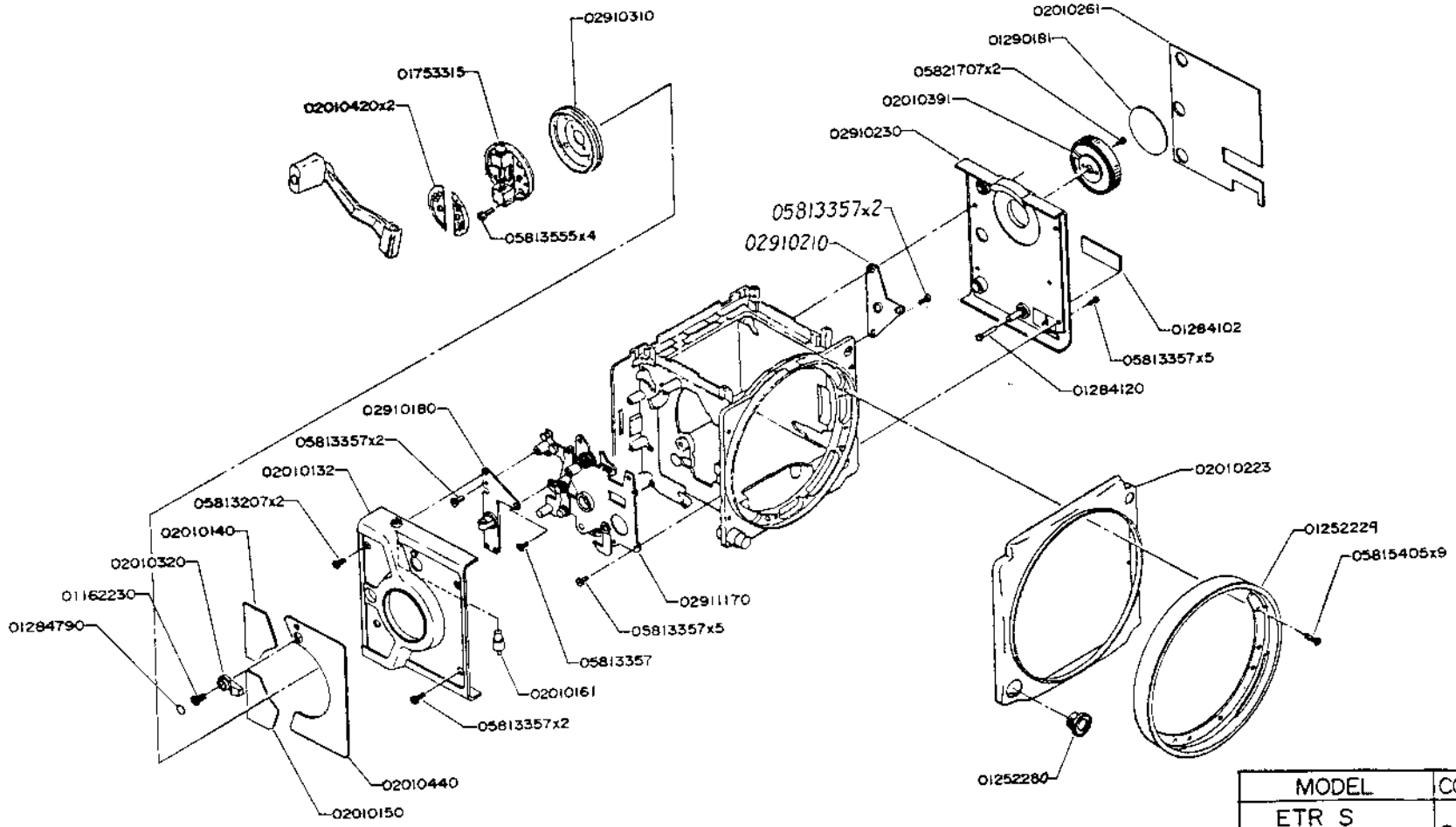
Parts No.	Description		Price	Order QTY	Stock	Delivery
01751200	Mirror operating unit	ミラー作動ユニット				
01751260	Set lever	セットレバー				
01751280	Light tight plate (right)	遮光板(右)				
01752095	S. latch unit	S.掛金ユニット				
01250033	Set lever shaft	セットレバー軸				
01251232	Light tight plate roller A	遮光板ローラーA				
01251243	Light tight plate roller shaft	遮光板ローラー軸				
01251460	Mirror arm stopper screw (right)	ミラーアームストッパーネジ(右)				
01251501	Operating plate set roller	作動板セットローラー				
01251561	Set lever stopper screw	セットレバー止ネジ				
01251571	Operating plate holder	作動板押え				
01251602	Operating ring spring (right)	作動リングバネ(右)				
0125613	Mirror operating lever spring	ミラー作動レバーバネ				
01251681	Light tight cover	遮光カバー				
01251740	Adjusting cam stopper screw	調節カム止ネジ				
01251821	Light tight plate spring	遮光板バネ				
01252241	Operating spring holder (right)	作動バネ押え(右)				
01252381	Release link stopper screw	レリーズリンク止ネジ				
01284580	S. release link	S.レリーズリンク				
01284591	Click spring	クリック板				
01284650	Release return spring	レリーズ戻しバネ				
10011370	Mirror arm adjust cam	ミラーアーム調節カム				

Order Received on _____ by _____

工場受付年月日 ____ ____ 年 ___ 月 ___ 日

受付 _____ 部 _____ 課 担当者 _____

出荷記録



MODEL	CODE	FIG.
ETR S Camera body	0201	6/6
BRONICA CO., LTD.		

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6

ETRS CAMERA BODY (PLASTIC TYPE)

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ETRS CAMERA BODY (PLASTIC TYPE) **6**

Name of Customer:

Your Order No.

Date of Your Order

Parts No.	Description		Price	Order QTY	Stock	Delivery
01753315	Crank base set	クランク座セット				
02910180	Strap ring base plate A	ストラップリング地板A				
02910210	Strap ring base plate B	ストラップリング地板B				
01290181	S. dial leatherette cover	S.ダイアル革カバー				
02910230	Left cover set	左カバーセット				
02910310	Crank ring	クランクリング				
02911170	Winding unit	巻上ユニット				
02010132	Right side cover	右カバー				
02010140	Right side cover leatherette (upper tail)	右カバー革(上後)				
02010150	Right side cover leatherette (lower tail)	右カバー革(下後)				
02010161	Finder release button	ファインダー解除ボタン				
02010223	Front cover	前カバー				
02010261	Left side cover leatherette	左カバー革				
02010320	Multi lever	マルチレバー				
02010391	S. dial ring	S.ダイアルリング				
02010420	Crank base leatherette	クランク座革				
02010440	Right side cover leatherette	右カバー革(前)				
01252229	Lens mount	レンズマウント				
01252280	S. button ring B	S.ボタンリングB				
01162230	Screw M1.7	ネジM1.7				
01284102	ETRS name plate	ETRS銘板				
01284120	Cable release pin	ケーブルレリーズピン				
01284790	Leatherette (multi lever)	革(マルチレバー)				

Order Received on _____ by _____

工場受付年月日 _____ 年 ___ 月 ___ 日

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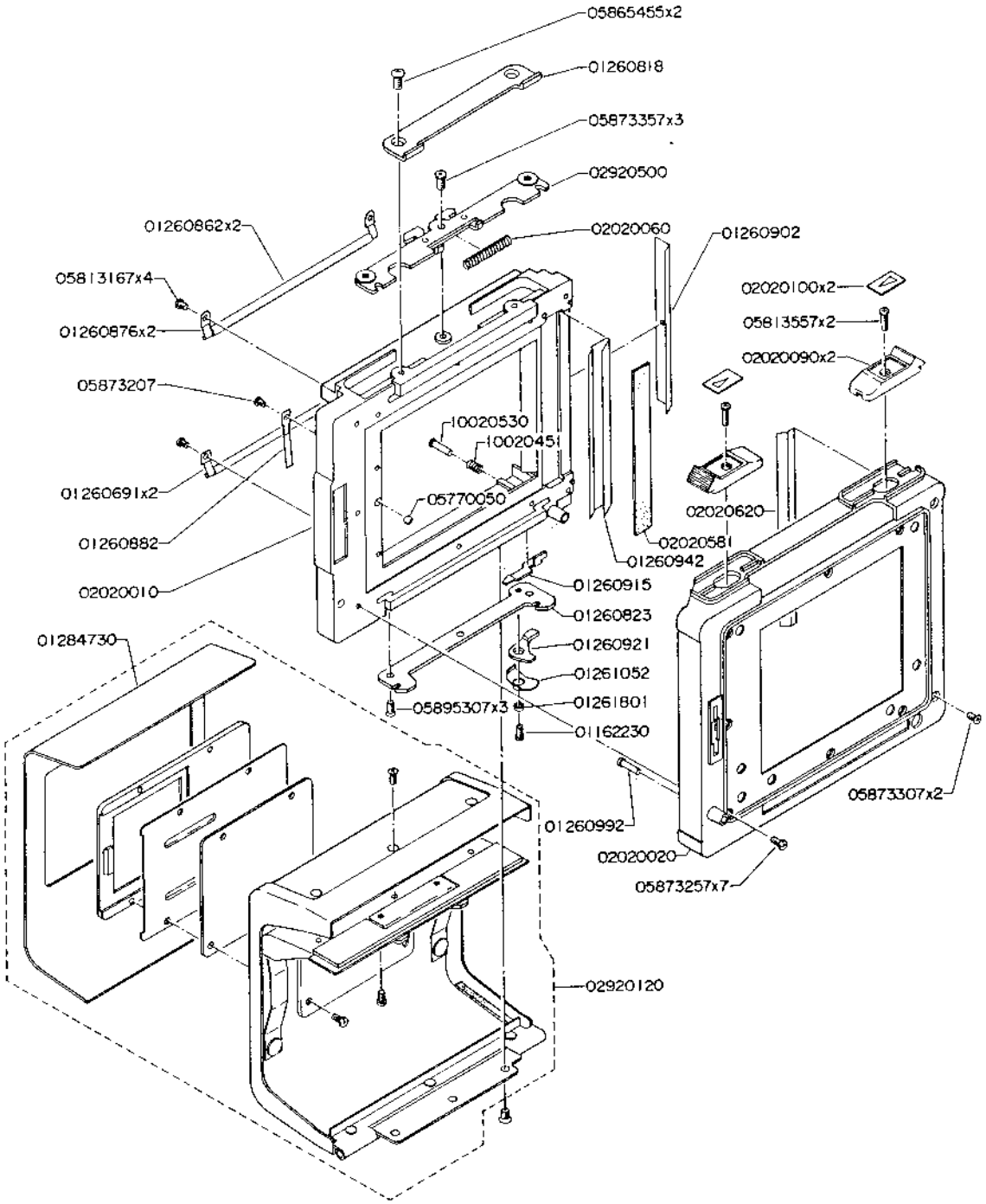
出荷記録

FILM BACK E
120/220
(PLASTIC TYPE) **1**



MODEL	CODE	FIG.
ETR FILMBACK E 120 FILMBACK E 220	 0202 0203	1/3
BRONICA CO., LTD.		

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BRONICA

Your Order No.
Date of Your Order

FILM BACK E
120／220
(PLASTIC TYPE) **1**

Name of Customer:

Parts No.	Description		Price	Order QTY	Stock	Delivery
02920120	Rear cover set	後蓋セット				
02920500	Rear cover opener	後蓋開閉板				
02020010	Connecting plate	結合板				
02020020	Connecting plate cover	結合板カバー				
02020060	Latch plate spring	掛金バネ				
02020090	Rear cover opener knob	後蓋開閉板ツマミ				
02020100	Rear cover opener indicator	後蓋開閉板指標				
02020581	Velvet B	引蓋ロテレンプB				
02020620	Light shield plate B	遮光板B				
01260691	Gate roller plate (lower)	ゲートローラー板(下)				
01260818	Connecting metal (upper)	結合メタル(上)				
01260823	Conneting metal (lower)	結合メタル(下)				
01260862	Gate roller	ゲートローラー				
01260876	Gate roller retainer	ゲートローラー押え				
01260882	Dark slide click plate	引蓋クリック板				
01260902	Light tight plate	遮光板				
01260915	Dark slide signal plate A	引蓋シグナル板A				
01260921	Dark slide signal plate B	引蓋シグナル板B				
01260942	Light tight plate C	遮光板C				
01260992	F release pin	F解除ピン				
01261052	Dark slide signal plate guide	引蓋シグナル板ガイド				
01261802	Guide collar B	ガイドカラーB				
01162230	Screw M1.7	ネジM1.7				
01284730	Leatherette (rear cover)	革(後蓋)				

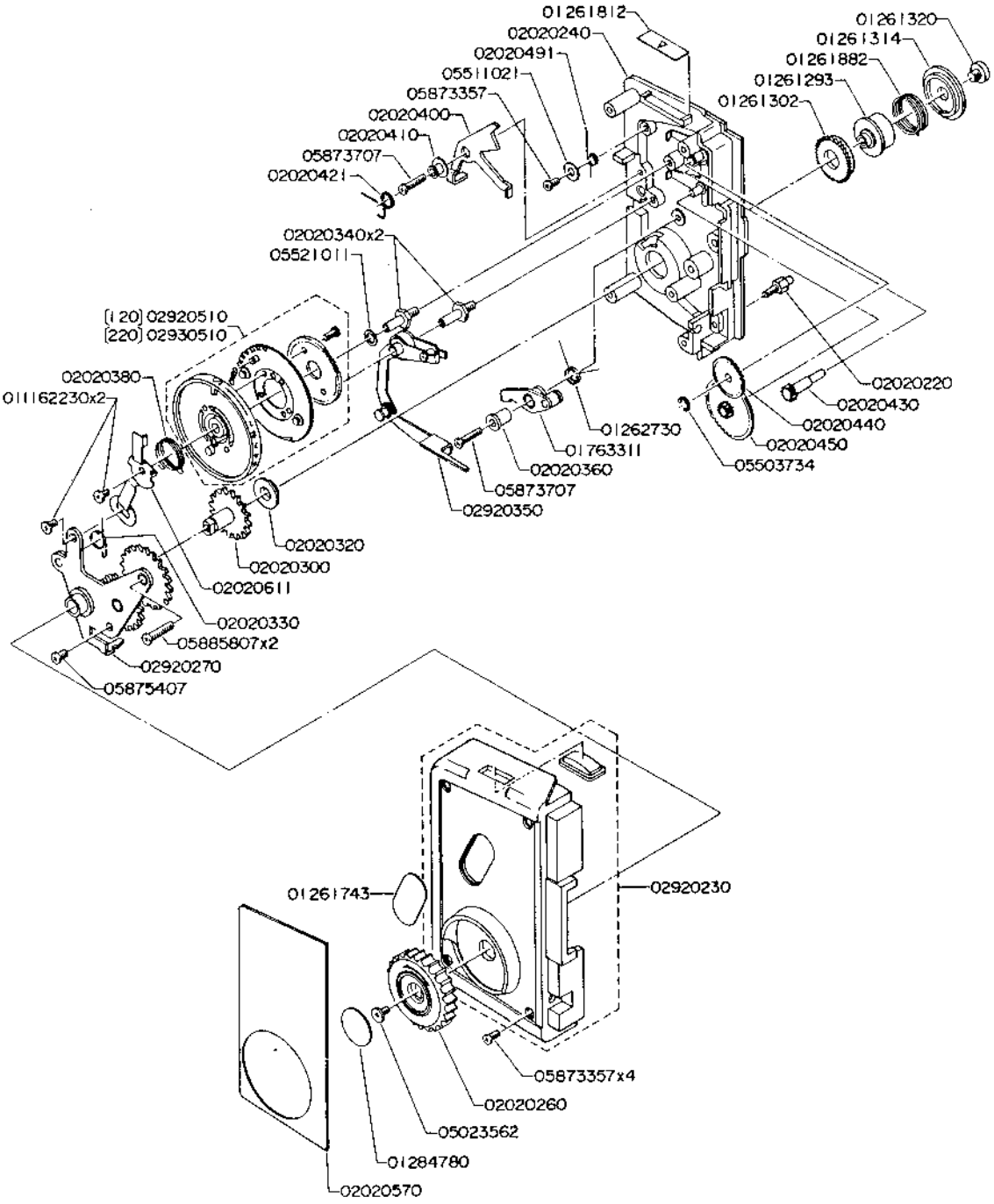
Order Received on _____ by _____

工場受付年月日 _____ 年 ___ 月 ___ 日

受付 _____ 部 _____ 課 担当者 _____

出荷記録

FILM BACK E
120/220
(PLASTIC TYPE) **2**



MODEL	CODE	FIG.
ETR FILMBACK E 120 FILMBACK E 220	 0202 0203	2/3
BRONICA CO., LTD.		

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ZENZA
BRONICA

FILM BACK E
120／220
(PLASTIC TYPE) **2**

Name of Customer:

Your Order No.

Date of Your Order

Parts No.	Description		Price	Order QTY	Stock	Delivery
02920230	Right cover set	右カバーセット				
02920240	Light tight plate set (right)	遮光板セット(右)				
02920270	Winding gear cover	巻上歯車カバー				
02920350	F. release lever set	F.解除レバーセット				
02920510	Dividing plate set (120)	割出板セット(120)				
02930510	Dividing plate set (220)	割出板セット(220)				
02020220	Counter roller shaft B	測長ローラー軸B				
02020260	Manual film winder	巻手ツマミ				
02020300	Back winding gear C	バック巻上歯車C				
02020320	Spool claw bearing	スプール爪軸受				
02020330	Reverse stopper spring	逆転止バネ				
02020340	Winding lever pillar	巻上レバー柱				
02020360	Wind up claw axle	巻上爪軸				
02020380	Counter gear plate spring	指数歯車板バネ				
02020400	Counter release lever	指数解除レバー				
02020410	Counter release lever axle	指数解除レバー軸				
02020421	Counter release spring	指数解除レバーバネ				
02020430	Counter gear A	指数歯車A				
02020440	Counter gear B	指数歯車B				
02020450	Counter gear C	指数歯車C				
02020491	Counter gear B lever spring	指数歯車Bレバーバネ				
02020570	Leatherette (right side cover)	革(右カバー)				
02020611	Counter stopper	指数板ストッパー				
01261293	Spool clutch axle	スプールクラッチ軸				
01261302	Wind stopper ratchet	巻上ストッパー掛金				
01261314	Spool metal	スプールメタル				
01261320	Spool shaft upper	スプール軸上				
01261743	Right side cover plate	右カバー板				
01261812	Frame index mark	指標				
01261882	Spool clutch spring	スプールクラッチバネ				
01262730	Winding stopper spring	巻上ストッパーバネ				
01284780	Back film winder leatherette	巻手ツマミ革				
01763311	Wind stopper lever	巻上ストッパーレバー				

Order Received on _____ by _____

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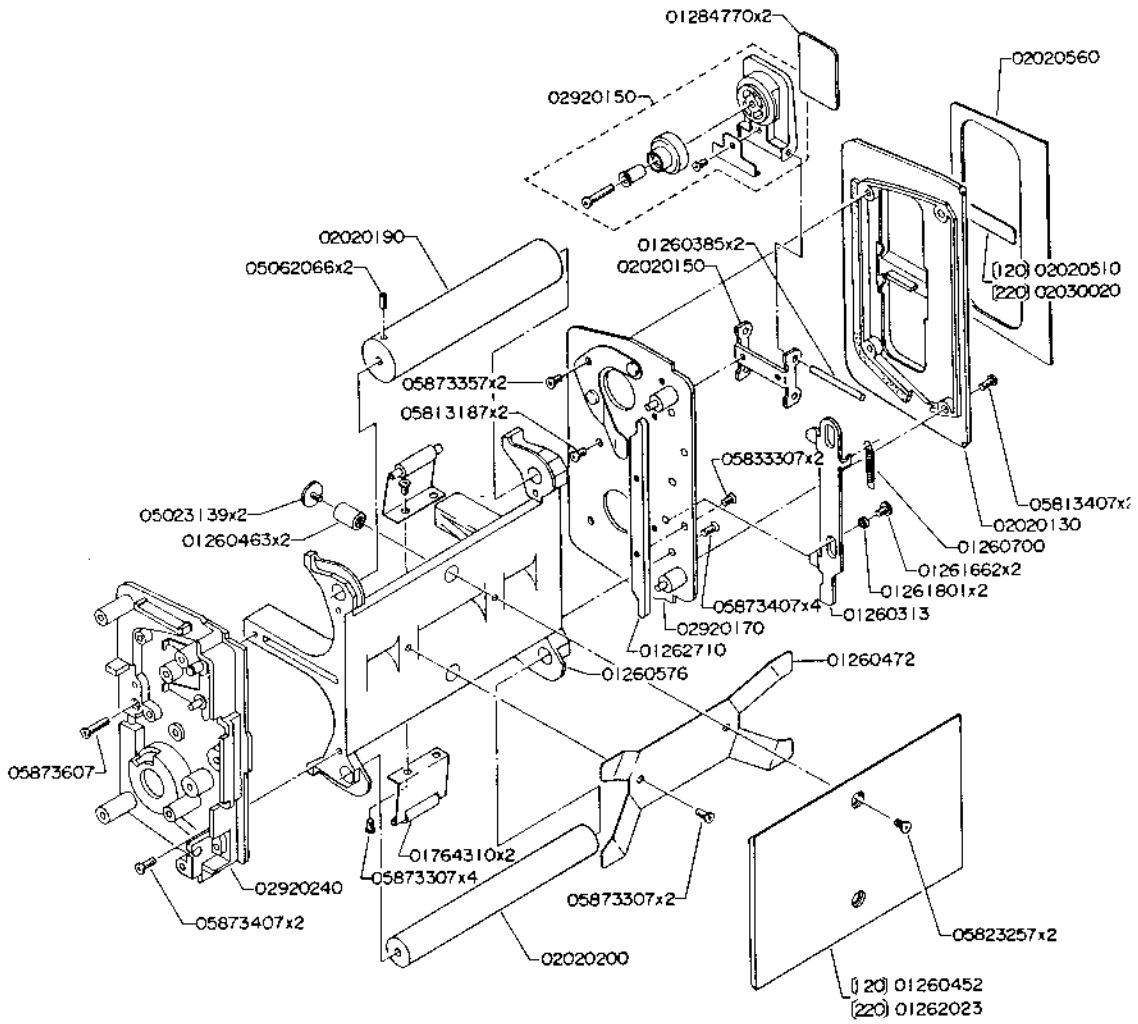
出荷記録

FILM BACK E
120/220
(PLASTIC TYPE) 3



MODEL	CODE	FIG.
ETR FILMBACK E 120 FILMBACK E 220	 0202 0203	3/3
BRONICA CO., LTD.		

1983.11

ZENZA
BRONICA

Your Order No.
Date of Your Order

FILM BACK E
120／220
(PLASTIC TYPE) **3**

Name of Customer:

Parts No.	Description		Price	Order QTY	Stock	Delivery
02920150	Spool bearing set	スプール軸受セット				
02920170	M. left side plate	M左板				
02920240	Light tight plate set (right)	遮光板セット(右)				
02020130	M. left side cover	M.左カバー				
02020150	Spool holder base	スプール受座				
02020190	Frame counter roller A	測長ローラーA				
02020200	Frame counter roller B	測長ローラーB				
02020510	120 film indicator plate	120銘板				
02030020	220 film indicator plate	220銘板				
01260313	Spool holder lock	スプール受ロック				
01260385	Spool holder base pin	スプール受座ピン				
01260452	Pressure plate (120)	圧板(120)				
01260463	Pressure plate pin	圧板ピン				
01260472	Pressure plate spring	圧板バネ				
01260576	Frame	フレーム				
01260700	Spool lock spring	スプールロックバネ				
01261662	Guide screw B	ガイドネジB				
01261881	Guide collar B	ガイドカラーB				
01262023	Pressure plate (220)	圧板(220)				
01262710	Frame attaching guide plate	フレーム取付ガイド板				
01284770	Back spool holder leatherette	スプール受革				
01764310	Spool spring roller set	スプールバネローラーセット				

Order Received on _____ by _____

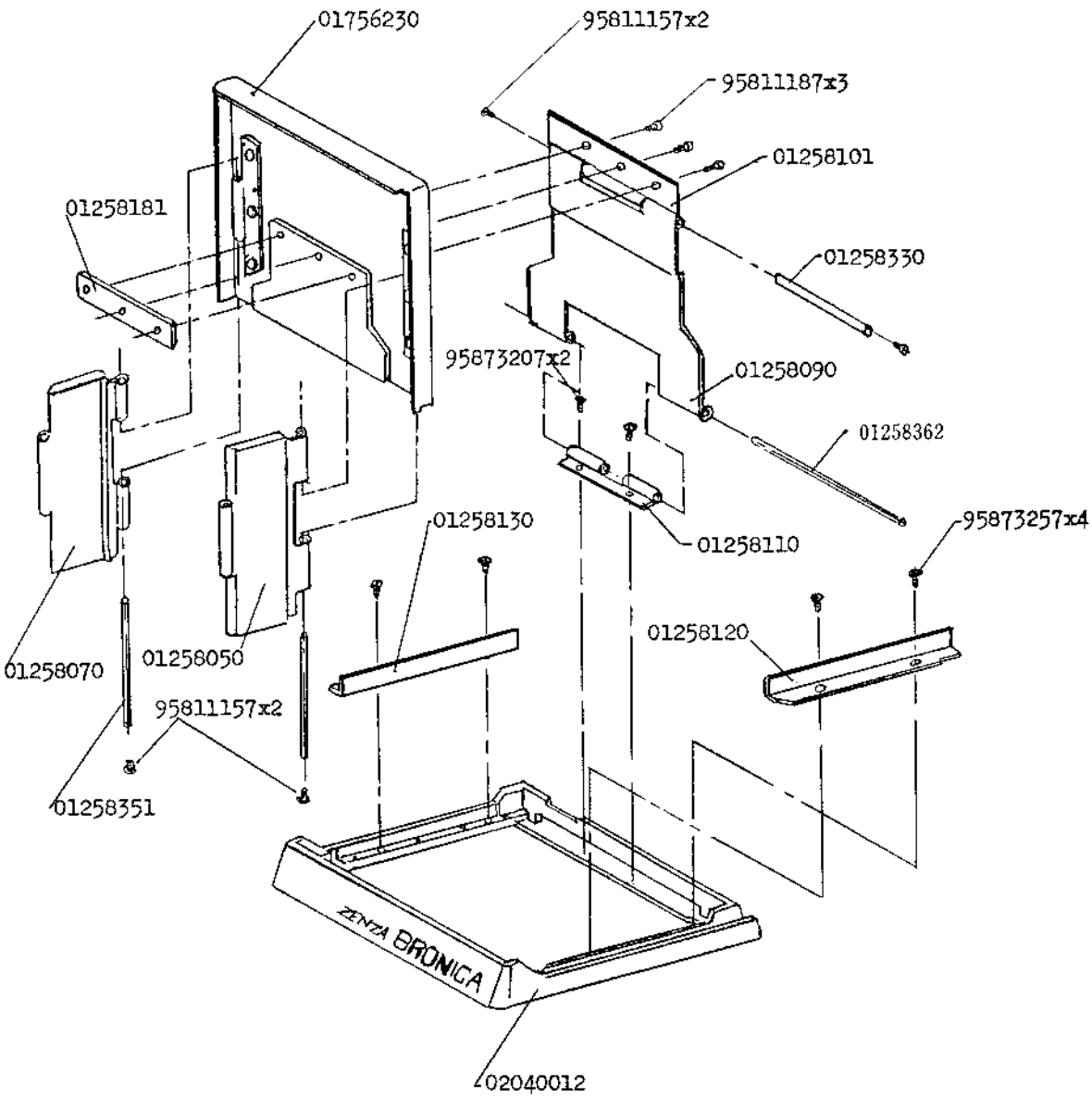
工場受付年月日 _____ 年 ___ 月 ___ 日

受付 _____ 部 _____ 課 担当者 _____

出 荷 記 録

ZENZA
BRONICA

WAIST-LEVEL FINDER E (PLASTIC TYPE) **1**



MODEL	CODE	FIG
WAIST LEVEL FINDER E	0204	1/2
BRONICA CO., LTD		

1983.11

ZENZA
BRONICA

Your Order No.
Date of Your Order

WAIST-LEVEL FINDER E (PLASTIC TYPE) **1**

Name of Customer:

Parts No.	Description		Price	Order QTY	Stock	Delivery
01756230	Rear frame	後枠				
02040012	Hood frame	フード枠				
01258050	Right plate B	右側板B				
01258070	Left plate B	左側板B				
01258090	Rear plate operation plate	後板作動板				
01258101	Rear plate connecting plate	後板結合板				
01258110	Operation plate metal	作動板メタル				
01258120	Light tight plate (left)	遮光板(左)				
01258130	Light tight plate (right)	遮光板(右)				
01258181	Connecting plate holder A	結合板受A				
01258330	Operation plate axle	作動板軸				
01258351	Plate axle	板軸				
01258362	Rear plate O-C axle	後板O-C軸				

Order Received on _____ by _____

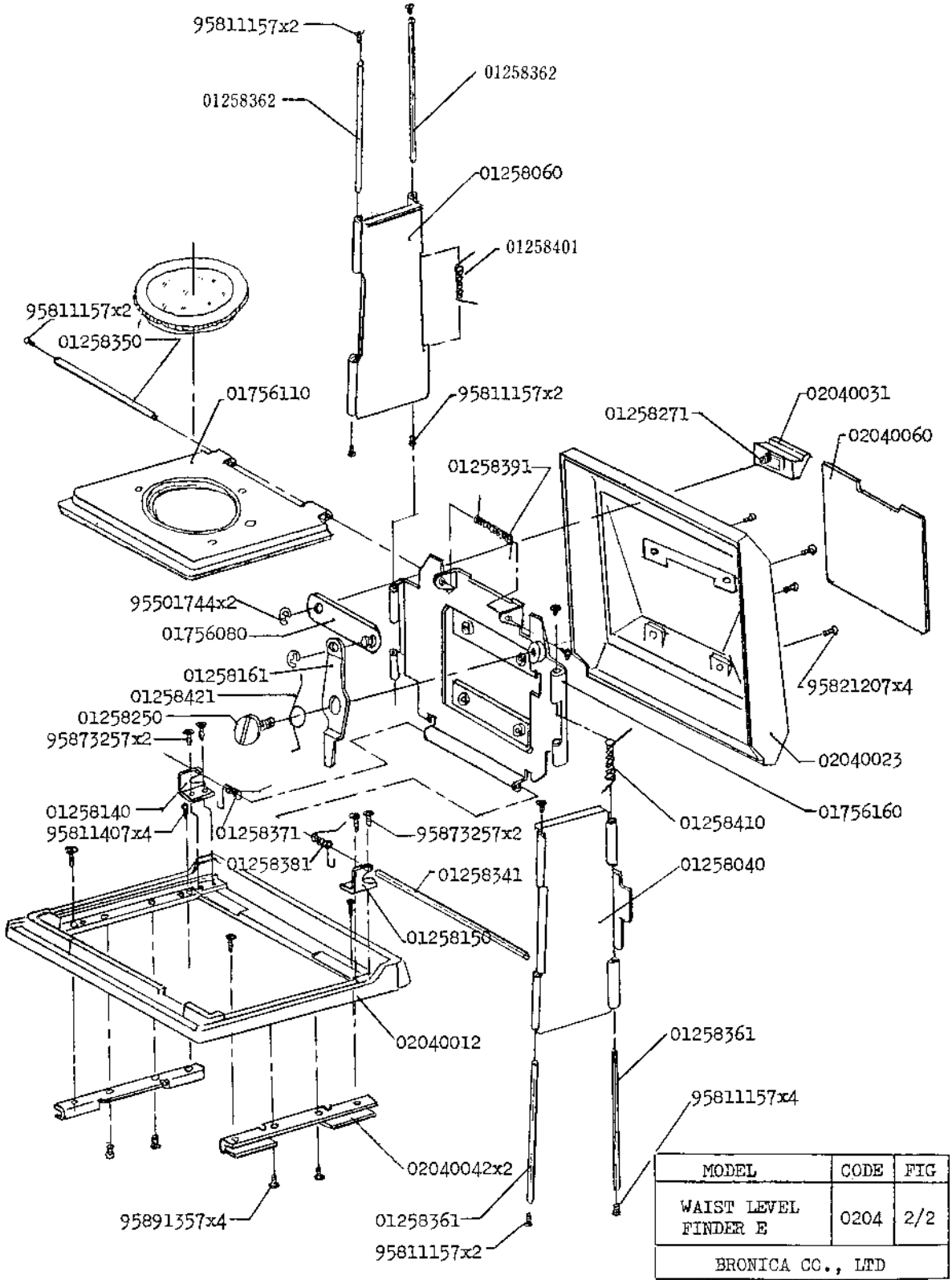
工場受付年月日 _____ 年 ___ 月 ___ 日

受付 _____ 部 _____ 課 担当者 _____

出荷記録

ZENZA
BRONICA

WAIST-LEVEL FINDER E (PLASTIC TYPE) **2**



MODEL	CODE	FIG
WAIST LEVEL FINDER E	0204	2/2
BRONICA CO., LTD		

1983.11

ZENZA
BRONICA

Your Order No.
Date of Your Order

WAIST-LEVEL FINDER E (PLASTIC TYPE) **2** Name of Customer:

Parts No.	Description		Price	Order QTY	Stock	Delivery
01756080	O-C lever relay lever	O-Cレバー中継レバー				
01756110	Magnifier frame	ルーペ枠				
01756160	Magnifier base	ルーペ台				
02040012	Hood frame	フード枠				
02040023	Top cover	開閉カバー				
02040031	Opener button	開閉ボタン				
02040042	Connecting rail	接続レール				
02040060	Top cover leatherette	開閉カバーレザー				
01258040	Right plate A	右側板A				
01258060	Left plate A	左側板A				
01258140	Top cover metal (left)	ルーペ板メタル(左)				
01258150	Top cover metal (right)	ルーペ板メタル(右)				
01258160	Magnifier O-C lever	ルーペ開閉レバー				
01258251	O-C lever screw	開閉レバーネジ				
01258270	Screw	ネジ				
01258341	Top cover O-C axle	ルーペ板O-C軸				
01258351	Plate axle	板軸				
01258362	Rear plate O-C axle	後板O-C軸				
01258371	Top cover O-C spring (left)	ルーペ板O-Cバネ(左)				
01258381	Top cover O-C spring (right)	ルーペ板O-Cバネ(右)				
01258391	Frame O-C spring	枠O-Cバネ				
01258401	Side plate O-C spring (left)	側板O-Cバネ(左)				
01258411	Side plate O-C spring (right)	側板O-Cバネ(右)				
01258421	Frame O-C spring	枠O-Cバネ				

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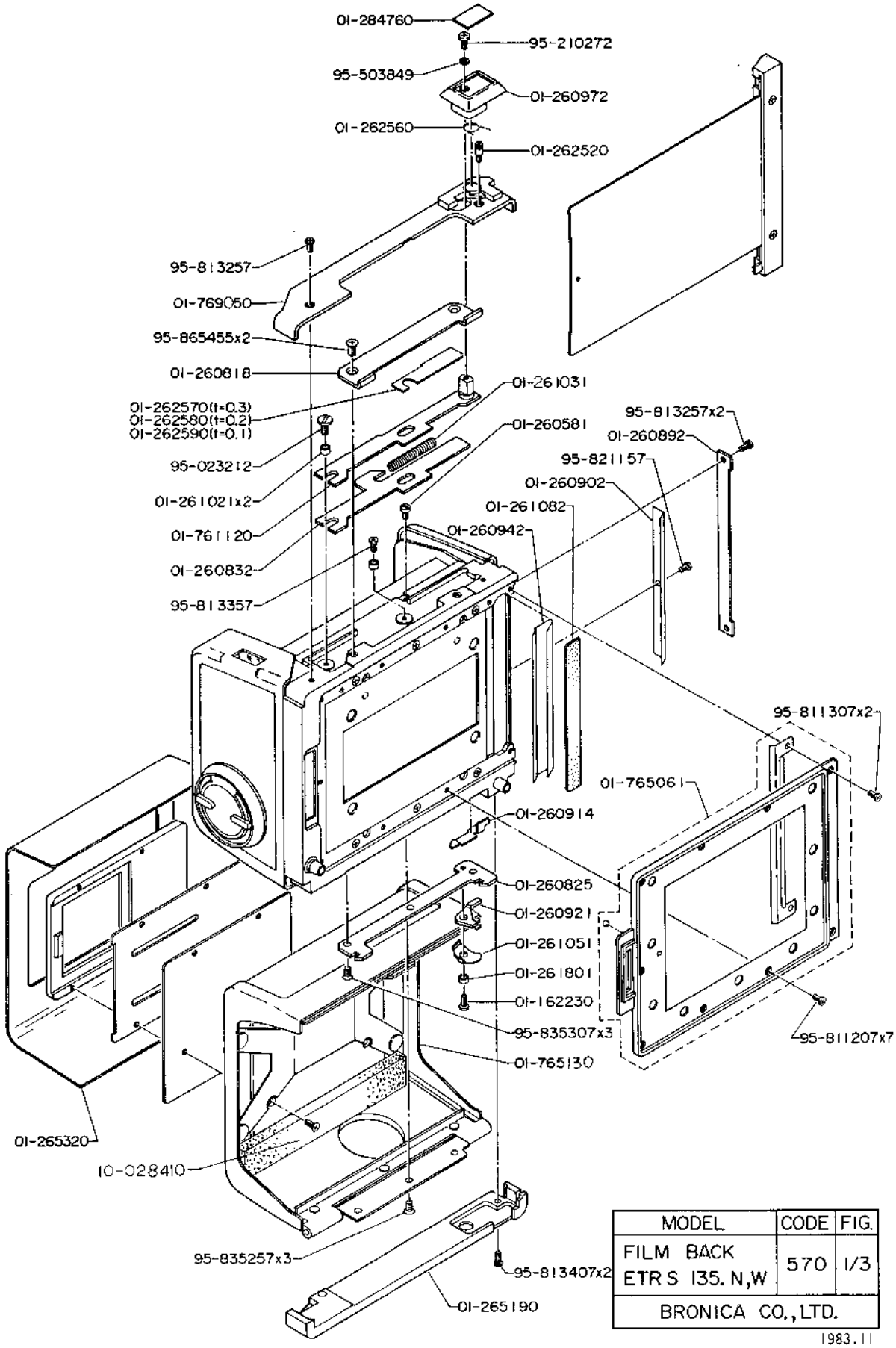
出荷記録

FILM BACK ETRS
135 N,W

1



MODEL	CODE	FIG.
FILM BACK ETR S 135. N,W	570	1/3
BRONICA CO., LTD.		

1983.11

ZENZA
BRONICA

Your Order No.
Date of Your Order

FILM BACK ETRS
135 N,W

1

Name of Customer:

Parts No.	Description		Price	Order QTY	Stock	Delivery
01761120	Rear cover opener (upper)	後蓋開閉板(上)				
01765061	Back front plate set	バック前板セット				
01765130	Rear cover set	後蓋セット				
01769050	Top cover	上カバー				
01260581	Latch guide	掛金ガイド				
01260818	Connecting metal (upper)	バック掛金(上)				
01260825	Connecting metal (lower)	バック掛金(下)				
01260832	Camera opener plate	後蓋開閉板				
01260892	Dark slide guide	引蓋口ガイド				
01260902	Light tight plate	引蓋遮光板				
01260914	Dark slide signal plate A	引蓋シグナル板A				
01260921	Dark slide signal plate B	引蓋シグナル板B				
01260942	Light tight plate C	引蓋遮光板C				
01260973	Back cover release button	開閉ツマミ				
01261021	Cover release plate collar	後蓋開閉板カラー				
01261030	Latch plate spring	開閉板バネ				
01261051	Signal plate guide	引蓋シグナル板ガイド				
01261081	Connecting plate velvet	引蓋口テレンプ				
01261801	Guide collar B	ガイドカラーB				
01262520	Spring shaft	バック上バネ柱				
01262560	Rear cover lock spring	後蓋ロックバネ				
01262570	Adjusting liner (t-0.3)	後蓋開閉板座金(t-0.3)				
01262580	Adjusting liner (t-0.2)	後蓋開閉板座金(t-0.2)				
01262590	Adjusting liner (t-0.1)	後蓋開閉板座金(t-0.1)				
01265190	Bottom cover	底カバー				
01265320	Leatherette (rear cover)	革(後蓋)				
01162230	Screw M1.7	ネジM1.7				

Order Received on _____ by _____

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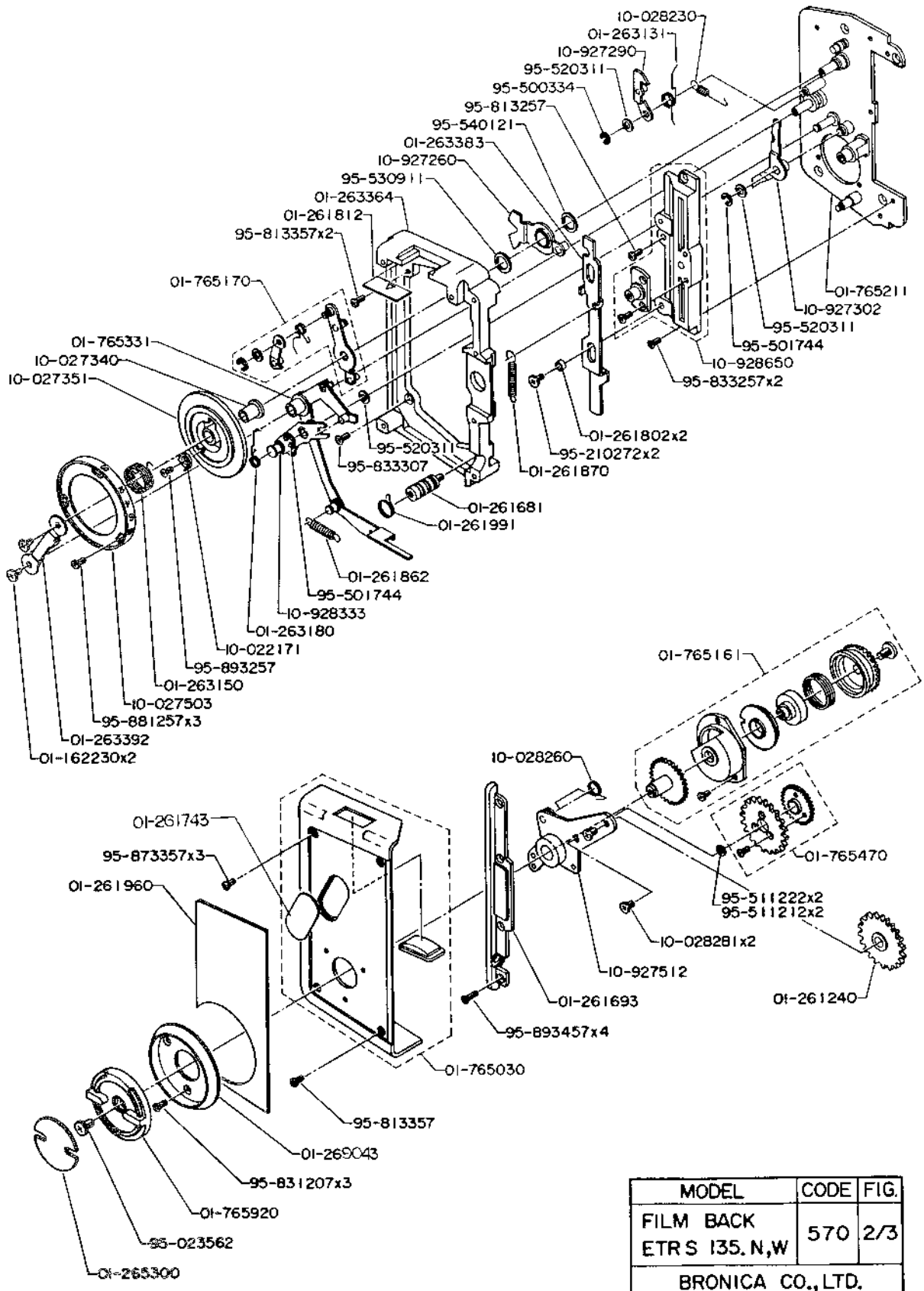
出 荷 記 録

ZENZA
BRONICA

FILM BACK ETRS
135 N,W

2



MODEL	CODE	FIG.
FILM BACK ETRS 135. N,W	570	2/3
BRONICA CO., LTD.		

1983.11

ZENZA
BRONICA

Your Order No.
Date of Your Order

FILM BACK ETRS 135 N,W **2** Name of Customer:

Parts No.	Description		Price	Order QTY	Stock	Delivery
01765030	M. right side cover set	M.右カバーセット				
01765161	Operating gear set	作動歯車セット				
01765170	Counter lever	指数送りレバー				
01765211	M. right plate	M.右板				
01765331	F. release lever	F.解除レバー				
01765470	Winding gear B/C set	巻上歯車B/Cセット				
01765920	Manual film winder	巻手ツマミ				
01261801	Guide collar B	ガイドカラーB				
01261812	Frame index mark	指標				
01261862	F. release spring	F.解除バネ				
01261870	Starting lever spring	起動レバーバネ				
01261960	Right cover leathette	右カバー革				
01261991	Right side cover pillar B spring	右カバー柱Bバネ				
01269043	Manual film winder cover	巻手ツマミカバー				
01263131	Counter reverse stopper claw spring	指数逆転止爪バネ				
01263150	Film counter spring	指数板バネ				
01263180	Wind stopper claw spring	巻上ストッパー爪バネ				
01263364	Right side cover	右カバー				
01263383	Starting lever	起動レバー				
01263392	Film counter stopper	指数板ストッパー				
01265300	Leatherette (manual film winder)	革(巻手ツマミ)				
01284750	Back left cover leatherette	バック左カバー革				
01162230	Screw M1.7	ネジM1.7				
10927260	Counter release cam	指数解除カム				
10927290	Reverse stopper claw	逆転止爪				
10927302	Counter operating lever	指数作動レバー				
10927512	Winding gear cover	巻上歯車カバー				
10928333	Wind stopper claw	巻止爪				
10928650	Sprocket	スプロケット				
10022171	Stopper angle	ストッパーアングル				
10027340	Film counter axle collar	指数板軸カラー				
10027351	Film counter ring	指数板リング				
10027503	Film counter	指数板				
10028231	Counter lever spring	指数板レバーバネ				
10028260	Reverse stopper claw spring	逆転止爪バネ				
10028281	Winding gear cover spring	巻上歯車受板止ネジ				

Order Received on _____ by _____

工場受付年月日 _____ 年 ___ 月 ___ 日

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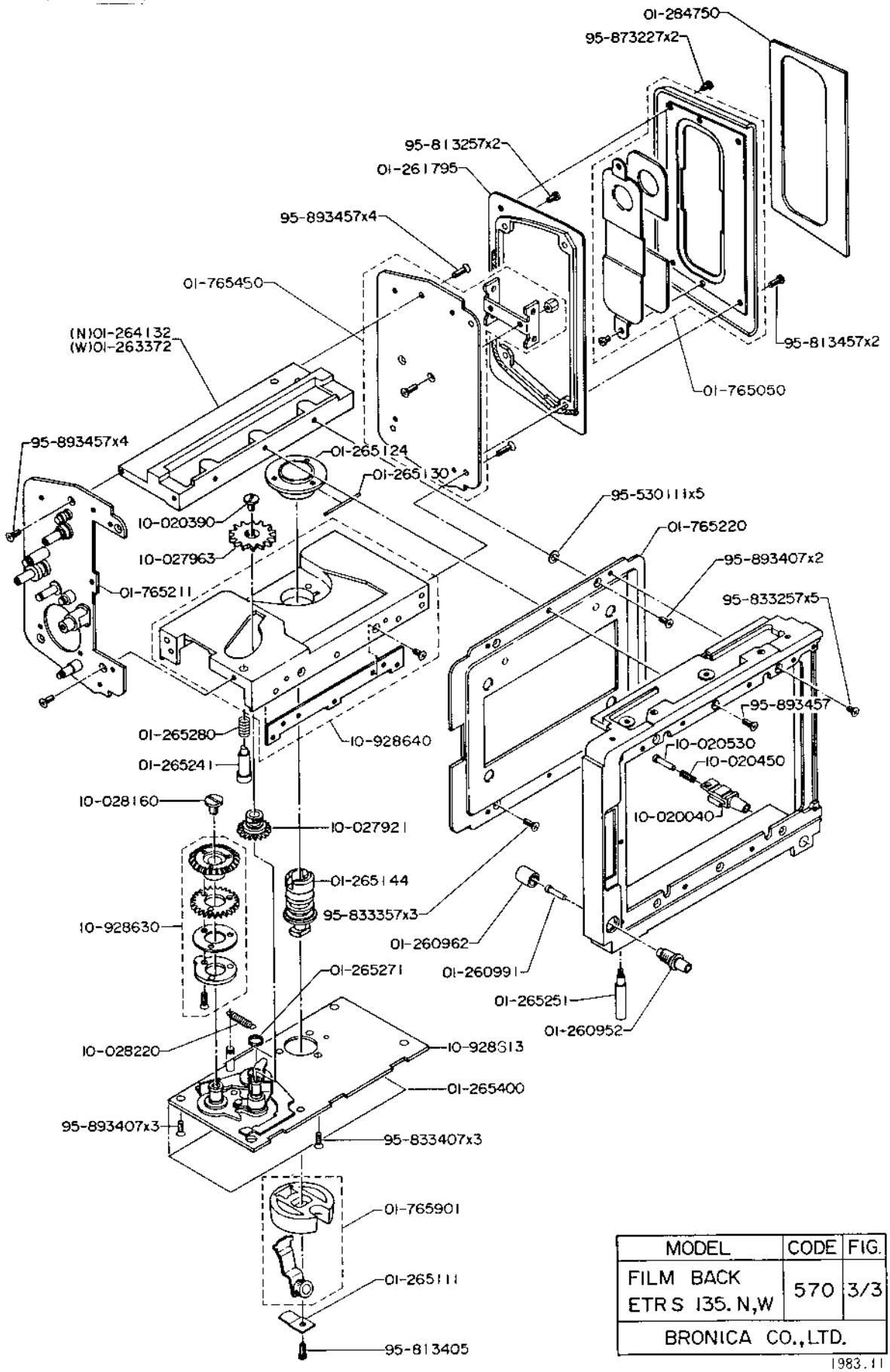
出荷記録

ZENZA
BRONICA

FILM BACK ETRS
135 N,W **3**



MODEL	CODE	FIG.
FILM BACK ETR S 135. N,W	570	3/3
BRONICA CO.,LTD.		

1983.11

ZENZA
BRONICA

Your Order No.
Date of Your Order

FILM BACK ETRS 135 N,W **3** Name of Customer:

Parts No.	Description		Price	Order QTY	Stock	Delivery
01765050	M. left side cover set	M.左カバーセット				
01765211	M. right plate	M右板				
01765220	Front plate	前板				
01765450	M. left plate set	M.左板セット				
01765901	Rewind crank	巻戻しクランク				
01260952	F. release cylinder A	F.解除筒A				
01260962	F. release cylinder B	F.解除筒B				
01260991	F. release pin	F解除ピン				
01261791	Light light frame (left)	遮光枠(左)				
01263372	Top frame W	上枠W				
01264132	Top frame N	上枠W				
01265111	Rewind crank spring	巻戻しクランクバネ				
01265124	Rewind bearing	巻戻し軸受				
01265130	Rewind shaft holder	巻戻し軸押え				
01265144	Rewind shaft	巻戻し軸				
01265241	Rewind button A	巻戻しボタンA				
01265251	Rewind button B	巻戻しボタンB				
01265271	Sprocket release lever spring	スプロケット解除レバーバネ				
01265280	Rewind button spring	巻戻しボタンバネ				
01265400	Base plate paper	地板化粧紙				
10928613	Base plate	地板				
10928630	Main gear set	主歯車セット				
10928640	Base plate cover set	地板カバーセット				
10020040	Signal cylinder	シグナル筒				
10020390	Opener plate retainer screw	開閉板止ネジ				
10020450	Dark slide signal spring	引蓋シグナルバネ				
10020530	Dark slide signal pin	引蓋シグナルピン				
10027921	Middle gear	中間歯車				
10027963	Transmission gear	伝動歯車				
10028160	Main shaft screw	主軸ネジ				
10028220	Operating lever spring	作動レバーバネ				

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工場受付年月日 ____ ____ 年 ___ 月 ___ 日

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出荷記録

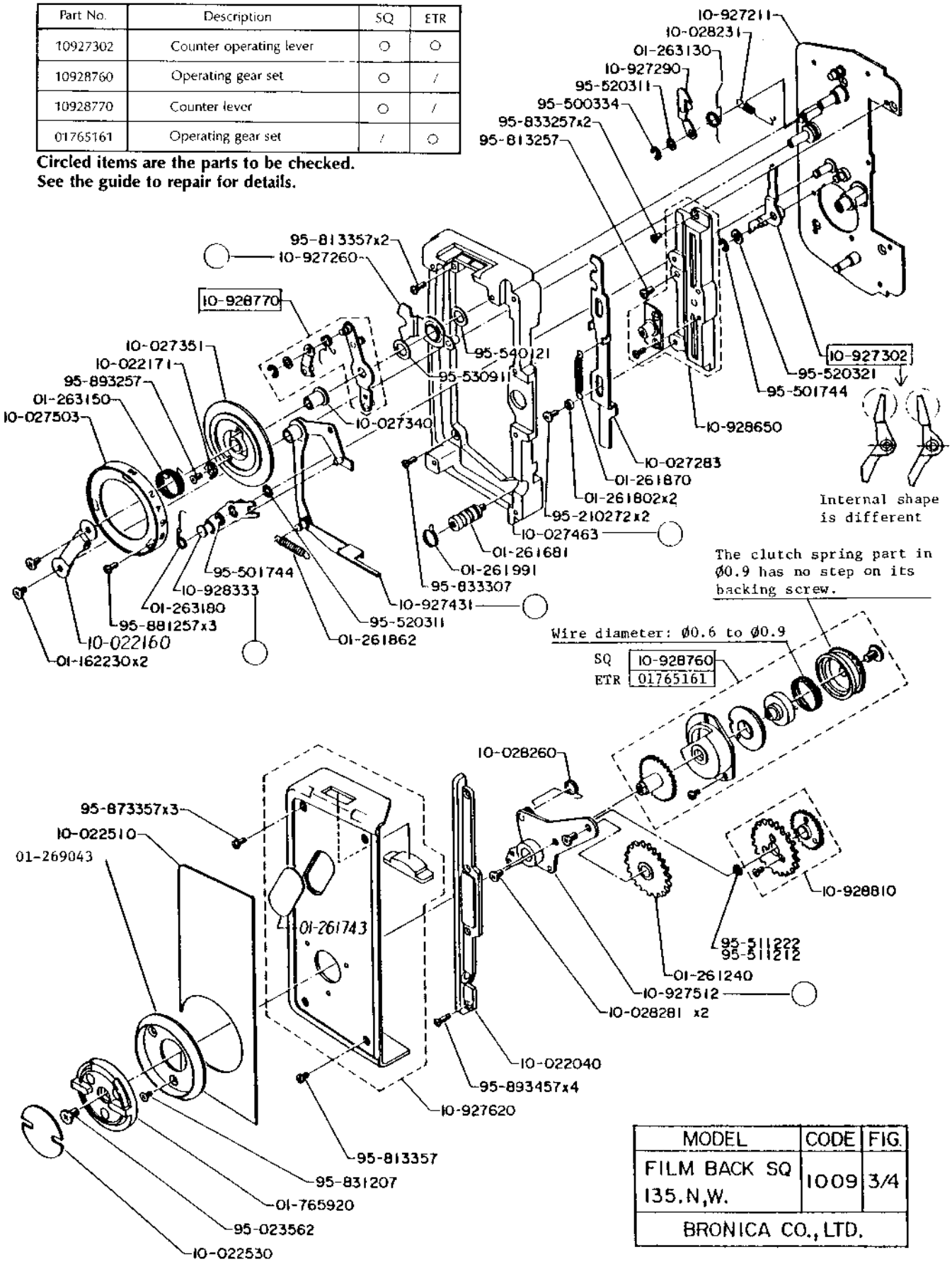
135 BACK REPAIR INSTRUCTION

1. Renewal and checking parts for picture overlap, repair for film with flaw
2. Repair and checking for smooth film wind/rewind
3. Guide to repair
4. Assembly instruction

Renewal parts for picture overlap (Circled items for each model must be replaced in units of set)

Part No.	Description	SQ	ETR
10927302	Counter operating lever	○	○
10928760	Operating gear set	○	/
10928770	Counter lever	○	/
01765161	Operating gear set	/	○

Circled items are the parts to be checked.
See the guide to repair for details.



MODEL	CODE	FIG.
FILM BACK SQ 135.N,W.	1009	3/4
BRONICA CO., LTD.		

Guide to repair

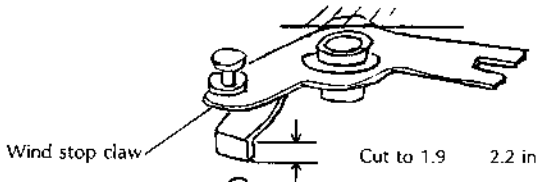
Most of failures in the 135 back is attributed to the film feed mechanism where the spring in the existing film wind clutch feature is insufficient in torque, causing troubles including film overlapping, failure in film feed and stop at the end of the film. The said product have been improved to reinforce the spring on the wind clutch feature. For a failure of a product, please replace the Operating gear set, a set of the parts for the wind clutch feature. The replacement of the Operating gear set must be done together with replacing other sets of part.

For ETR: 01765161 Operating gear set
10927302 Counter operating lever

For SQ: 10928761 Operating gear lever
10927302 Counter operating lever
10928771 Counter lever

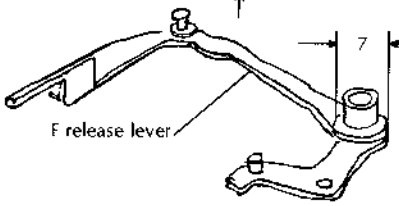
The following provision is needed for the initial product in replacing the Operating gear set. Please check each part.

①



Cut to 1.9 2.2 in case of the initial product Part may be replaced.

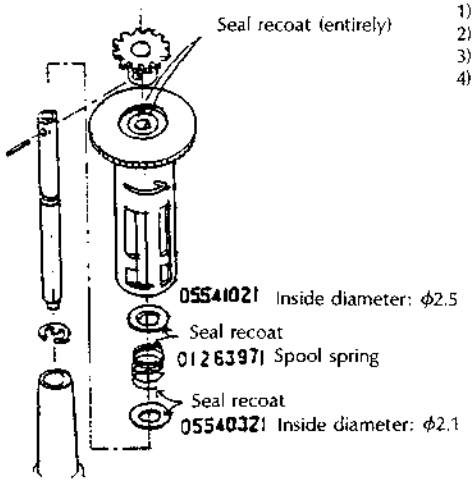
②



If this diameter is 7 mm, cut the shaded section of the wind stop claw in "1" above to an extnet of 0.5 so that it does not contact the F release lever. The part may also be replaced. The existing product has a diameter of 6.5.

③ Film Holder

Spool friction



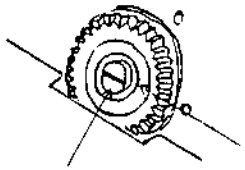
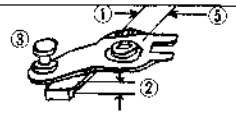
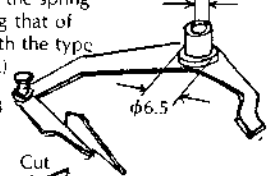
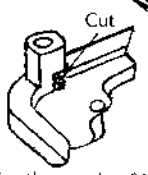
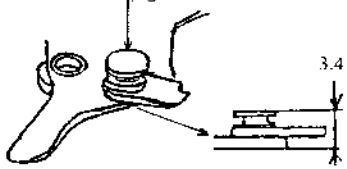
Make easier to wind and rewind
1) Remove the washers in exceess of one for each side.
2) Use the lower side washer with an inside diameter of 2.1.
3) Check both ends of the spool spring. Replace the old type if any.
4) Apply a satisfactory amount of seal coat to both ends of the spool spring (or both washers contacting the spool spring) and the outer shell of the spool indicated by an arrow mark.

Old type New type

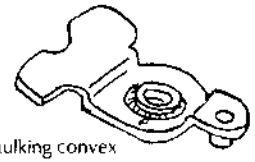
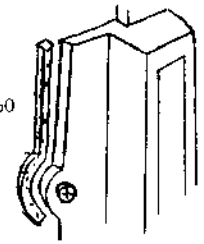
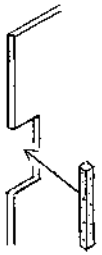
Grind both ends.
Overall length: Old type 10.5±
New type 11±

How to distinguish the old type from the new type:
Push down the main gear N (or W) and turn the spool in the direction reverse to the arrow mark. Check if there is a marked difference in length or stickiness between the initial product and the latest one.

135 BACK REPAIR INSTRUCTION: OUTER FRAME (TOTAL INSPECTION)
(M right plate requires disassembly)

Action	Part No.	Description	Affected model ETR	Affected model SQ	Choice in replacement	Repair items	Method for repair	Remark
Replacement	10928761	Operating gear set		○	Wearless stamp of 3J or older types.	Picture overlap	Replace SQ 3-piece set. Twist bending is needed for the counter operating lever whose caulking pin is 3 in diameter and has problems with	Replace with 10027570 of module 0.4
	10928771	Counter lever		○	Open the rear cover and replace the bevel gear if the lock screw seat is counter bored.	Slippage of winding		↑
	10927302	Counter operating lever	○	○	 Counter bore for lock screw		Replace ETR 2-piece set	Up to 1000 units of SQ alone use 10022250 of module 0.5.
	01765161	Operating gear set	○					
	10928810	Wind gear B/C set						
Check, Repair, Replacement	10928333	Wind stopper claw	○	○	 The remedy shown at right is unnecessary if the wind stopper claw is placed atop.	Picture overlap	1) Cut shaded section (when used in combination with F release lever pillar (ϕ7). 2) Cut to 2.5-0.2 including the height of wind stopper claw and plate thickness. 3) Entirely discard(by cutting or grinding) the initial type of wind stop shaft. 4) Ensure that the wind stopper claw spring is effective.	The shaded section of the part of ϕ6.5 needs not be cut.
	10927431	F release lever		○		Picture overlap	ϕ2.53 reaming (Replace the spring including that of ϕ1.8 with the type of ϕ0.2.) 5) ϕ2.03 reaming 	
	01765331	"	○				 For initial lot of 200 units alone.	
	01263364	Right side cover	○			Picture overlap		
	10927512	Winding gear cover	○		Cut by grinder 	Picture overlap (wind slip)	For those using 01261362 of the wind gear reverse stop shaft (01265420) and older models, set the wind stopper claw on E ring side when cutting by grinder so that the spring 3.7 in length does not come off.	

Action: Check. Repair. Replacement

Part		Affected model		Choice in replacement	Repair items	Method for repair	Remark
Part No.	Description	ETR	SQ				
10927260	counter release cam	○	○	 Caulking convex	Wind slippage	Remove convexed part	
	Moltoplene	○	○	Black bond coating	Leakage of light	Around sprocket chamber  01265060 Front panel notch	
Check missing parts.				Total inspection		 01265430	
Mounting of wrong parts							
Greasing (specific to rewind)							

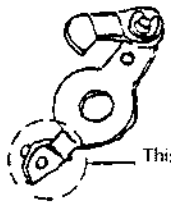
Action: Check. Repair. Replacement

Part		Affected model		Choice in replacement	Repair items	Method for repair	Remark
Part No.	Description	N	W				
01763520	Spool set	○	○	Total inspection Refer to the working standard	Winding motion is heavy	1) 01263971 spool spring terminal unit (grinder) none. Replace. 2) 4 washers inserted. Remove 2 washers. 3) Lower washer of 05540321 (inside diameter of 2.1) is used. 4) Apply seal coat to the gear and the contacting portion of the outer shell.	
01765771	Sprocket axle	○	○	Total inspection	Overlapping (rewinding motion is heavy).	1) Pillar screw M1.4 (01264041) is replaced with that of the outside diameter of 1.6 (of the initial model is used). One or two pieces may be used. 2) Loose caulking: Ensure that the sprocket axle is staked properly in the detent groove of the sprocket gear. 3) Remove the seal coat from around the pillar screw (for the initial product).	
01263593	Sprocket	○	○	Total inspection	Overlapping	1) Replace the part with faulty groove. 2) Remove seal coat.	
					Winding and rewinding motions are heavy.	Build up the inner frame for those parts preceding the one without blind hole. If not, adhesion is made.	
01264140	Patrone	○	○	Total inspection	Windig motion is heavy.	Replace it preferably with the part of the part number ended with 8.	
01264150	Patrone	○	○				
01263588	Frame W		○	Total inspection Insert the film through the film pressure plate, hold both ends of the film, and tilt it at angles of 45 degrees to check how smoothly the entire middle frame works.			

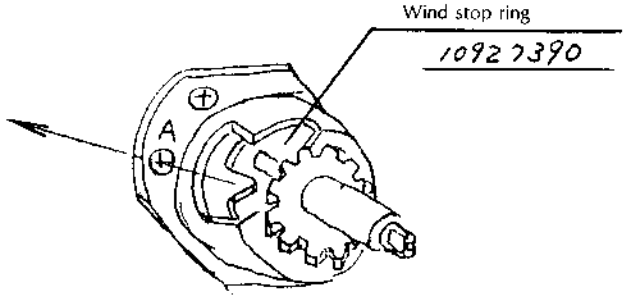
Subject: 135 BACK REPAIR INSTRUCTION SUPPLEMENT

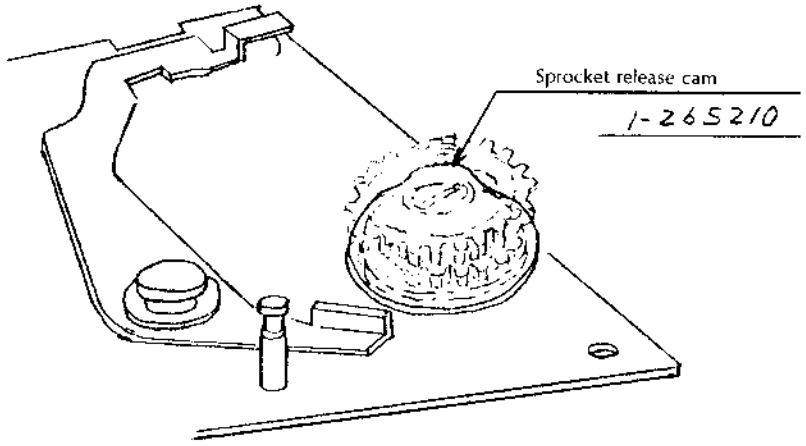
The notice for repair of picture overlap including the replacement of the operating gear set has the following supplemental repair items.

1. ETR: 01765170 counter lever
It needs not be replaced concurrently with the operating gear set (01765161) provided it has a bent top with a twist to cause excessive counter feed.



2. SQ: 1092770 counter lever
It must be replaced together with the operating gear set (10928760).
The operating gear set (10928760) and the new (with a clutch spring in diameter of 0.9) counter lever set (10928770) with the counter lever bent with a twist are supplied until the counter lever pin changes from 3 to 3.5 in diameter. Add a twist bending type if the counter feed becomes insufficient while the replacement is done together with the operating gear set used with a lever pin of 3 in diameter. (See the figure above.)





In order to ensure the setting position (raised for locking) of the rewind button when stopping the rewind motion, follow the assembly procedure in which the protruding position of the sprocket release cam of the rewind plate assembly must come in reverse to the contact surface of the sprocket release lever and faces in the direction of the mounting screw A, matching the position of the rewind stop ring groove.

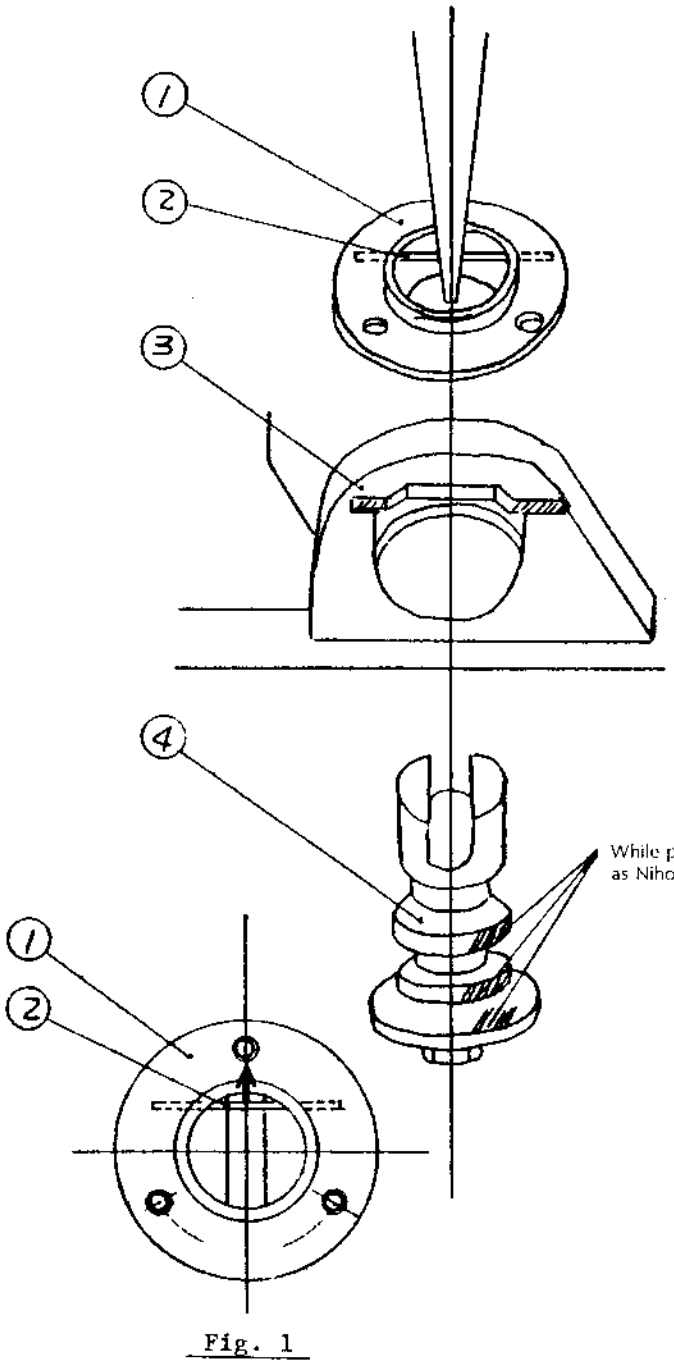


Fig. 1

1 Have the rewind shaft holder (2) to come through the rewind bearing (1), take the rewind shaft holder with a pincette and fit it together with the rewind bearing into the base plate cover.
Ensure that the rewind shaft holder properly fits in the groove shown by shade lines at left on the base plate cover, and tighten it with screws. While pushing in, apply sufficient amount of cold resistant grease such as Nihon Koyu #23, or light color grease for appearance.

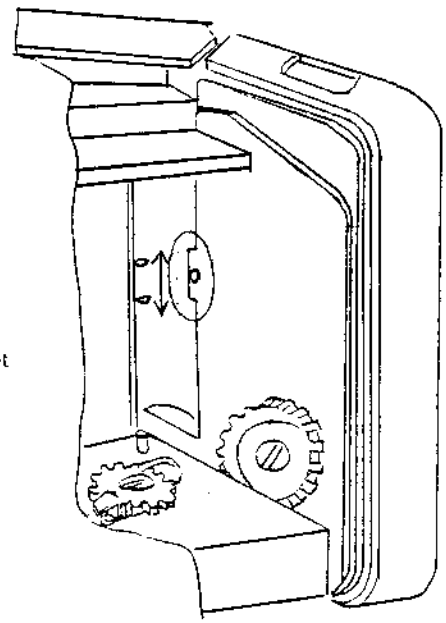
2 To install the rewind shaft (4), as shown in Fig. 1, adjust the slit of the rewind shaft and the rewind shaft holder to be nearly at right angles to each other, rewind the rewind shaft holder from the slitting of the rewind shaft in the direction of the arrow mark, push until it is hidden by the rewind bearing, then push up the rewind shaft.

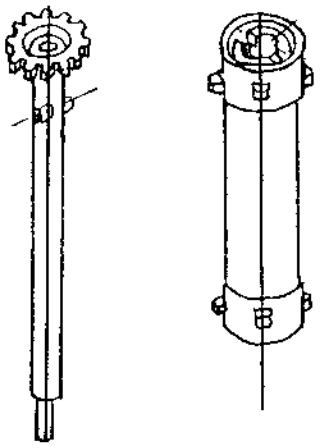
While pushing in, apply sufficient amount of cold resistant grease such as Nihon Koyu #23, or light color grease for appearance.

Note 1: Check that the rewind shaft holder properly fits in the groove of the base plate cover, and the rewind bearing is bolted flush with the base plate.
Note 2: If the rewind shaft is pressed with an excessive force instead of taking step 2 above, the rewind shaft holder may be deformed, causing a play in the rewind shaft that may result in a failure in engangement with the patrone.

Remedy for flaw film

1. Check the rotation of the gate roller for streaks in the film surface. If the rotation is found incorrect, readjust the gate roller holder to shift the position in place.
2. Refer to the figure for flaws crossing the middle of the picture. Rub the protruded portion on the boundary between the M right plate and the sprocket chamber with an oil stone with a motion shown by the arrow in the figure. Check the finish with your finger touch. Apply a magic coat when the white base surface appears.





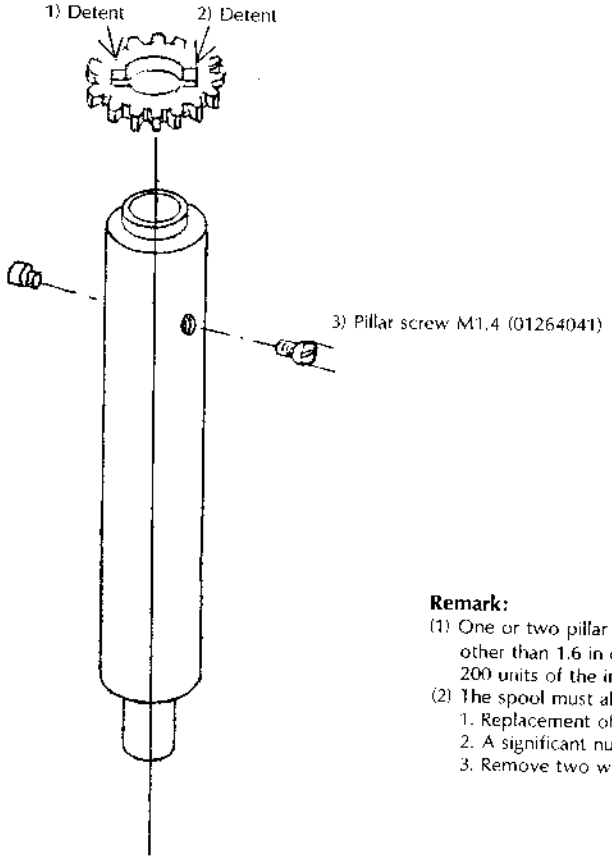
1) **Defect in caulking:**
The sprocket shaft (1-263773) must be caulked into the detent of the sprocket gear (1-263831).

2) **Pillar screw M1.4 (1-264041):**
1.6 in diameter is used. The number of the pillar screws was originally one, and is increased to two. One screw is used at this time.
(February 4, 1983)
The initial product of 2.0 in diameter is replaced by that of 1.6 in diameter.

3) No oil, grease or other lubricant should be applied to this portion and the pillar screw.

Additional repair for picture overlap

One unit was found defective in the caulking of the sprocket shaft (01765770) among the faulty units under repair in the Toda Factory on February 9 of 1984. Please disassemble the faulty product under repair for picture overlap and check if the sprocket shaft is properly caulked into the detent groove on the sprocket gear. For defective caulking, renew caulking or replace it with a renewal part. (See the repair instruction.)



Remark:
(1) One or two pillar screws may be used as required. Pillar screw of other than 1.6 in diameter (the pillar screw of 2 in diameter is used for 200 units of the initial ETR and 100 units of SQ) must be replaced.
(2) The spool must always be disassembled.
1. Replacement of spool spring.
2. A significant number of spools lacks seal coat.
3. Remove two washers if a total of 4 washers are present.